

## RNA Sequencing results

MNK1KO on WT RNA-Seq					all genes					MNK2KO on WT RNA-Seq							
ensembl	baseMean	log2FoldChange	pvalue	padj	symbol	ensembl	baseMean	log2FoldChange	pvalue	padj	symbol	ensembl	baseMean	log2FoldChange	pvalue	padj	symbol
ENSMUSG_38.39162	0.0311	0.919564	0.990247	0.6100960202R		ENSMUSG_35.90888	0.130089	0.755721	0.96315	0.6100960202R		ENSMUSG_35.90888	0.130089	0.755721	0.96315	0.6100960202R	
ENSMUSG_149.0358	0.00179	0.929294	0.999327	0.6100961188R		ENSMUSG_125.9145	0.23425	0.507351	0.88016	0.6100961188R		ENSMUSG_125.9145	0.23425	0.507351	0.88016	0.6100961188R	
ENSMUSG_47.15189	0.00013	0.942084	0.999415	0.6100961481R		ENSMUSG_46.10229	0.196235	0.517417	0.939291	0.6100961481R		ENSMUSG_46.10229	0.196235	0.517417	0.939291	0.6100961481R	
ENSMUSG_488.1113	0.13535	0.34004	0.777959	0.6100960320R		ENSMUSG_438.3463	0.100556	0.516244	0.930939	0.6100960320R		ENSMUSG_438.3463	0.100556	0.516244	0.930939	0.6100960320R	
ENSMUSG_11.25929	0.069201	0.903901	NA	0.6100961303R		ENSMUSG_7.173468	0.314774	0.688986	NA	0.6100961303R		ENSMUSG_7.173468	0.314774	0.688986	NA	0.6100961303R	
ENSMUSG_60.55498	-0.40319	0.104339	0.490485	0.6100400810R		ENSMUSG_55.0515	-0.42266	0.133171	0.82912	0.6100400810R		ENSMUSG_55.0515	-0.42266	0.133171	0.82912	0.6100400810R	
ENSMUSG_31.329	0.878653	0.538317	0.999999	0.6100960202R		ENSMUSG_40.03304	0.03304	0.939302	0.999999	0.6100960202R		ENSMUSG_40.03304	0.03304	0.939302	0.999999	0.6100960202R	
ENSMUSG_454.5432	0.144848	0.348115	0.795774	0.6100400410R		ENSMUSG_383.0579	0.11593	0.494291	0.917527	0.6100400410R		ENSMUSG_383.0579	0.11593	0.494291	0.917527	0.6100400410R	
ENSMUSG_12.93891	-0.27539	0.63303	NA	0.6100431378R		ENSMUSG_11.97634	-0.23715	0.68306	0.958676	0.6100431378R		ENSMUSG_11.97634	-0.23715	0.68306	0.958676	0.6100431378R	
ENSMUSG_83.84037	-0.0189	0.933713	0.993206	0.6111000222R		ENSMUSG_72.78895	-0.15916	0.275279	0.984611	0.6111000222R		ENSMUSG_72.78895	-0.15916	0.275279	0.984611	0.6111000222R	
ENSMUSG_480.5043	-0.0583	0.894324	0.9343	0.6111000218R		ENSMUSG_454.9278	-0.13139	0.322756	0.940211	0.6111000218R		ENSMUSG_454.9278	-0.13139	0.322756	0.940211	0.6111000218R	
ENSMUSG_1620.367	0.01925	0.867815	0.99631	0.6111000410R		ENSMUSG_1450.717	0.03622	0.815309	0.97819	0.6111000410R		ENSMUSG_1450.717	0.03622	0.815309	0.97819	0.6111000410R	
ENSMUSG_39.51538	-0.11302	0.753949	0.98891	0.6110060248R		ENSMUSG_35.40919	-0.1574	0.84	0.98876	0.6110060248R		ENSMUSG_35.40919	-0.1574	0.84	0.98876	0.6110060248R	
ENSMUSG_21.62515	0.227461	0.6132	0.980892	0.6110050158R		ENSMUSG_17.81553	0.10712	0.881873	0.98964	0.6110050158R		ENSMUSG_17.81553	0.10712	0.881873	0.98964	0.6110050158R	
ENSMUSG_97.8587	-0.06884	0.7542	0.950336	0.6110019043R		ENSMUSG_71.75477	-0.54839	0.29892	0.61991	0.6110019043R		ENSMUSG_71.75477	-0.54839	0.29892	0.61991	0.6110019043R	
ENSMUSG_26.83199	-0.2094	0.500474	0.898974	0.6110020421R		ENSMUSG_24.51742	-0.219821	0.59259	0.945313	0.6110020421R		ENSMUSG_24.51742	-0.219821	0.59259	0.945313	0.6110020421R	
ENSMUSG_366.2282	-0.09857	0.56216	0.889236	0.6110037048R		ENSMUSG_392.5864	0.358477	0.07457	0.97621	0.6110037048R		ENSMUSG_392.5864	0.358477	0.07457	0.97621	0.6110037048R	
ENSMUSG_368.4378	-0.05936	0.634895	0.914078	0.6110038128R		ENSMUSG_347.6255	-0.045781	0.745128	0.96953	0.6110038128R		ENSMUSG_347.6255	-0.045781	0.745128	0.96953	0.6110038128R	
ENSMUSG_433.8837	0.111593	0.419305	0.821897	0.6110038148R		ENSMUSG_37.627	-0.05542	0.7328	0.967228	0.6110038148R		ENSMUSG_37.627	-0.05542	0.7328	0.967228	0.6110038148R	
ENSMUSG_128.2734	0.196891	0.260311	0.712435	0.6110046091R		ENSMUSG_101.0602	-0.2266	0.2845	0.98241	0.6110046091R		ENSMUSG_101.0602	-0.2266	0.2845	0.98241	0.6110046091R	
ENSMUSG_180.5493	0.000117	0.999402	0.99989	0.6110059248R		ENSMUSG_157.6877	-0.1313	0.472229	0.912329	0.6110059248R		ENSMUSG_157.6877	-0.1313	0.472229	0.912329	0.6110059248R	
ENSMUSG_21.8959	0.073487	0.656913	0.927504	0.6110059610R		ENSMUSG_192.5406	0.056611	0.785782	0.976285	0.6110059610R		ENSMUSG_192.5406	0.056611	0.785782	0.976285	0.6110059610R	
ENSMUSG_17.9513	0.092117	0.304765	0.725274	0.6110059202R		ENSMUSG_142.5414	-0.21891	0.073747	0.763629	0.6110059202R		ENSMUSG_142.5414	-0.21891	0.073747	0.763629	0.6110059202R	
ENSMUSG_107.4967	0.048985	0.817805	0.967785	0.6110059406R		ENSMUSG_96.74233	-0.01377	0.701521	0.994778	0.6110059406R		ENSMUSG_96.74233	-0.01377	0.701521	0.994778	0.6110059406R	
ENSMUSG_166.822	0.07012	0.01521	0.937441	0.6110020211R		ENSMUSG_134.7175	-0.29687	0.01521	0.937441	0.6110020211R		ENSMUSG_134.7175	-0.29687	0.01521	0.937441	0.6110020211R	
ENSMUSG_1371.961	-0.0974	0.327935	0.957400	0.6110004131R		ENSMUSG_126.5	-0.0245	0.606768	0.978436	0.6110004131R		ENSMUSG_126.5	-0.0245	0.606768	0.978436	0.6110004131R	
ENSMUSG_353.9453	0.10273	0.446508	0.833726	0.6110009116R		ENSMUSG_311.3448	-0.01075	0.924798	0.954978	0.6110009116R		ENSMUSG_311.3448	-0.01075	0.924798	0.954978	0.6110009116R	
ENSMUSG_3432.101	-0.10769	0.175179	0.610399	0.6100118038R		ENSMUSG_3187.423	-0.05279	0.64388	0.953903	0.6100118038R		ENSMUSG_3187.423	-0.05279	0.64388	0.953903	0.6100118038R	
ENSMUSG_8.071107	0.1789	0.00281	0.901292	0.6100120218R		ENSMUSG_5.182441	-0.07219	0.74699	0.99519	0.6100120218R		ENSMUSG_5.182441	-0.07219	0.74699	0.99519	0.6100120218R	
ENSMUSG_100.1464	-0.10999	0.597838	0.906076	0.6100015407R		ENSMUSG_47.96327	-0.20769	0.478661	0.913239	0.6100015407R		ENSMUSG_47.96327	-0.20769	0.478661	0.913239	0.6100015407R	
ENSMUSG_50.2518	-0.36705	0.175159	0.610399	0.6100015248R		ENSMUSG_70.56823	-0.2644	0.313623	0.981781	0.6100015248R		ENSMUSG_70.56823	-0.2644	0.313623	0.981781	0.6100015248R	
ENSMUSG_87.37377	0.163377	0.615473	0.910481	0.6100026178R		ENSMUSG_56.78272	-0.57139	0.045481	0.969359	0.6100026178R		ENSMUSG_56.78272	-0.57139	0.045481	0.969359	0.6100026178R	
ENSMUSG_67.73877	0.073877	0.009889	0.475984	0.6100012011R		ENSMUSG_590.0232	0.009232	0.642611	0.991604	0.6100012011R		ENSMUSG_590.0232	0.009232	0.642611	0.991604	0.6100012011R	
ENSMUSG_52.32439	-0.45892	0.005532	0.994848	0.6100012069R		ENSMUSG_580.4277	-0.1263	0.24917	0.967389	0.6100012069R		ENSMUSG_580.4277	-0.1263	0.24917	0.967389	0.6100012069R	
ENSMUSG_66.32127	-0.02915	0.802225	0.962119	0.6100014238R		ENSMUSG_5.537566	-0.58498	0.36444	NA	0.6100014238R		ENSMUSG_5.537566	-0.58498	0.36444	NA	0.6100014238R	
ENSMUSG_12.29313	-0.09479	0.854077	NA	0.6100412338R		ENSMUSG_300.9245	-0.170474	0.298158	0.89838	0.6100412338R		ENSMUSG_300.9245	-0.170474	0.298158	0.89838	0.6100412338R	
ENSMUSG_322.4489	0.097286	0.459215	0.840344	0.6100020201R		ENSMUSG_15.73484	0.772409	0.138678	0.829086	0.6100020201R		ENSMUSG_15.73484	0.772409	0.138678	0.829086	0.6100020201R	
ENSMUSG_13.61029	0.088437	0.848477	NA	0.6100029148R		ENSMUSG_10.4054	-0.0136	0.984055	0.971257	0.6100029148R		ENSMUSG_10.4054	-0.0136	0.984055	0.971257	0.6100029148R	
ENSMUSG_10.04207	0.180821	0.885564	NA	0.6100017118R		ENSMUSG_216.3209	0.137679	0.299799	0.912757	0.6100017118R		ENSMUSG_216.3209	0.137679	0.299799	0.912757	0.6100017118R	
ENSMUSG_10.15388	-0.49842	0.386025	NA	0.6100016178R		ENSMUSG_27.44155	-0.5079	0.27355	0.885057	0.6100016178R		ENSMUSG_27.44155	-0.5079	0.27355	0.885057	0.6100016178R	
ENSMUSG_246.4802	0.30029	0.13813	0.553165	0.6100010228R		ENSMUSG_1583.564	0.078915	0.429599	0.938061	0.6100010228R		ENSMUSG_1583.564	0.078915	0.429599	0.938061	0.6100010228R	
ENSMUSG_27.69484	0.00098	0.475984	0.9700120118R		ENSMUSG_18.82029	-0.45094	0.642611	0.991604	0.6100010228R		ENSMUSG_18.82029	-0.45094	0.642611	0.991604	0.6100010228R		
ENSMUSG_1827.387	0.08802	0.031203	0.273791	0.610001618R		ENSMUSG_1627.938	-0.16193	0.02333	0.855577	0.610001618R		ENSMUSG_1627.938	-0.16193	0.02333	0.855577	0.610001618R	
ENSMUSG_21.04411	-0.39439	0.350443	NA	0.6100031228R		ENSMUSG_17.0003	-0.67912	0.159572	0.837724	0.6100031228R		ENSMUSG_17.0003	-0.67912	0.159572	0.837724	0.6100031228R	
ENSMUSG_1340.842	-1.49752	4.90E-42	1.99E-38	0.6100030078R		ENSMUSG_11.68001	-0.57616	0.305375	0.89838	0.6100030078R		ENSMUSG_11.68001	-0.57616	0.305375	0.89838	0.6100030078R	
ENSMUSG_21.71444	0.00013	0.999402	0.99989	0.6100030078R		ENSMUSG_167.227	-0.08829	0.634895	0.914078	0.6100030078R		ENSMUSG_167.227	-0.08829	0.634895	0.914078	0.6100030078R	
ENSMUSG_15.19319	-0.02893	0.950678	NA	0.6100070696R		ENSMUSG_43.0089	-0.2086	0.15231	0.936967	0.6100070696R		ENSMUSG_43.0089	-0.2086	0.15231	0.936967	0.6100070696R	
ENSMUSG_185.9767	-0.0277	0.880466	0.981469	0.610008078R		ENSMUSG_25.52759	-0.06202	0.88036	0.98644	0.610008078R		ENSMUSG_25.52759	-0.06202	0.88036	0.98644	0.610008078R	
ENSMUSG_46.80159	-0.2224	0.458811	0.840244	0.6100080393R		ENSMUSG_14.19932	0.681598	0.240791	0.864412	0.6100080393R		ENSMUSG_14.19932	0.681598	0.240791	0.864412	0.6100080393R	
ENSMUSG_31.72039	0.07674	0.47375	0.82549	0.6100010121R		ENSMUSG_186.1122	0.18683	0.41893	0.952577	0.6100010121R		ENSMUSG_186.1122	0.18683	0.41893	0.952577	0.6100010121R	
ENSMUSG_159.1381	0.00098	0.475984	0.9700120118R		ENSMUSG_18.82029	-0.45094	0.642611	0.991604	0.6100010121R		ENSMUSG_18.82029	-0.45094	0.642611	0.991604	0.6100010121R		
ENSMUSG_14.98917	-0.3111	0.531718	NA	0.6100060991R		ENSMUSG_399.1477	0.147293	0.39									



NSM3UG 29.81542	-0.35296	0.319852	7.65305	281.003420321R
NSM3UG 29.97321	-0.3627	0.47261	8.861	281.081408141R
NSM3UG 30.0007	-0.3516	0.3618	7.6615	281.05151606R
NSM3UG 30.0007	-0.3516	0.3618	7.6615	281.05151606R
NSM3UG 31.44403	-0.10033	0.10333	0.77777	281.281404000R
NSM3UG 96.31291	-0.11698	0.36489	0.7947	280.9514091511R
NSM3UG 94.96157	-0.05072	0.15077	0.8679	280.00015519R
NSM3UG 94.96157	-0.05072	0.15077	0.8679	280.00015519R
NSM3UG 2483.819	-0.12014	0.09201	0.46537	290.002604020R
NSM3UG 20.42786	-0.28032	0.64659	0.9404	290.000400040R
NSM3UG 7890.488	-0.05373	0.71493	0.94144	290.00052010R
NSM3UG 7890.488	-0.05373	0.71493	0.94144	290.00052010R
NSM3UG 192.8946	-0.05298	0.77888	0.95442	290.000706070R
NSM3UG 255.8629	-0.0907	0.940208	0.95919	290.00079201R
NSM3UG 50.94964	-0.14591	0.6058	0.90519	290.00093209R
NSM3UG 50.94964	-0.14591	0.6058	0.90519	290.00093209R
NSM3UG 10.65345	-0.19221	0.753626	0.9415	311.00060006R
NSM3UG 30.22526	-0.09422	0.97103	0.99415	311.00080008R
NSM3UG 62.25087	-0.00535	0.98453	0.9711	311.003909200R
NSM3UG 62.25087	-0.00535	0.98453	0.9711	311.003909200R
NSM3UG 10.65345	-0.19221	0.753626	0.9415	311.00060006R
NSM3UG 50.78185	-0.15847	0.646058	0.93634	311.00702202R
NSM3UG 226.9625	-0.053178	0.70805	0.91919	311.00802172R
NSM3UG 197.3728	-0.15249	0.41652	0.8209	311.00821248R
NSM3UG 197.3728	-0.15249	0.41652	0.8209	311.00821248R
NSM3UG 35.60079	-0.05103	0.850004	0.97565	330.00020000R
NSM3UG 19.12394	-0.45749	0.309266	0.9139	330.00020139R
NSM3UG 54.58843	-0.0001	0.999268	0.99989	342.00013301R
NSM3UG 54.58843	-0.0001	0.999268	0.99989	342.00013301R
NSM3UG 192.017	-0.0957	0.970371	0.99639	330.04080211R
NSM3UG 20.26804	-0.09177	0.83042	0.9404	320.00042323R
NSM3UG 57.04225	-0.14748	0.195186	0.9346	462.00044120R
NSM3UG 57.04225	-0.14748	0.195186	0.9346	462.00044120R
NSM3UG 32.76017	-0.0880	0.80420	0.9162	442.00042804R
NSM3UG 35.57095	-0.06493	0.858485	0.91673	472.00044109R
NSM3UG 324.2219	-0.04684	0.640963	0.91467	472.00047310R
NSM3UG 21.48453	-0.19112	0.809099	0.96372	483.00043305R
NSM3UG 21.48453	-0.19112	0.809099	0.96372	483.00043305R
NSM3UG 21.9607	-0.14991	0.718741	0.9415	483.00043207R
NSM3UG 36.72951	-0.37524	0.22614	0.67035	483.000431802R
NSM3UG 986.6284	-0.06837	0.631407	0.94203	483.00042607R
NSM3UG 14.25634	-0.03749	0.945099	0.9415	483.00042201R
NSM3UG 57.9741	-0.0843	0.720904	0.94268	483.00043102R
NSM3UG 9383.077	0.03984	0.32517	0.70608	483.00043102R
NSM3UG 9383.077	0.03984	0.32517	0.70608	483.00043102R
NSM3UG 157.0545	0.02534	0.898784	0.94153	492.00042157R
NSM3UG 126.1768	-0.08318	0.613776	0.91646	492.00042157R
NSM3UG 30.45987	-0.2836	0.429679	0.82045	492.00042157R
NSM3UG 25.77967	-0.50054	0.71347	0.84028	492.000426050R
NSM3UG 28.2245	-0.2558	0.47446	0.90406	492.000426109R
NSM3UG 14.62602	0.091036	0.878054	0.9415	493.00042100R
NSM3UG 14.62602	0.091036	0.878054	0.9415	493.00042100R
NSM3UG 12.38235	-0.07137	0.974802	0.9415	493.00042700R
NSM3UG 35.1558	-0.0216	0.93745	0.9415	493.000452013R

ENMUS7	28.77169	0.405258	0.838786	0.95727	2810048
ENMUS7	47.20227	0.154026	0.86486	0.952754	2810048
ENMUS7	49.96555	0.008967	0.99993	0.99993	2810048
ENMUS7	50.29906	-0.1513	0.399688	N/A	2810048
ENMUS7	87.70748	-0.1443	0.330542	0.97978	2810455
ENMUS7	43.01243	0.391396	0.436381	0.98538	2810009
ENMUS7	29.02641	-0.41873	0.30193	0.98838	2900009
ENMUS7	171.076	0.000000	0.999999	0.999999	2900009
ENMUS7	18.56999	-0.2946	0.633834	0.953903	2900009
ENMUS7	66.42336	-0.18306	0.307678	0.98538	2900005
ENMUS7	107.4605	0.384402	0.180098	0.850372	2900009
ENMUS7	104.018	0.000000	0.999999	0.999999	2900009
ENMUS7	228.548	-0.07728	0.64949	0.98398	2900007
ENMUS7	50.88085	0.130039	0.669139	0.956766	2900009
ENMUS7	30.02641	0.006407	0.856964	0.983647	3010001
ENMUS7	187.275	0.000000	0.999999	0.999999	3010001
ENMUS7	26.12148	-0.2112	0.59184	0.944755	3110001
ENMUS7	62.72884	0.243108	0.400906	0.92927	3110003
ENMUS7	134.8087	-0.0238	0.327919	0.906255	3110003
ENMUS7	25.53585	-0.65284	0.373743	0.89999	3110004
ENMUS7	56.5693	0.000000	0.999999	0.999999	3110004
ENMUS7	201.4689	0.000000	0.856741	0.985884	3110008
ENMUS7	163.4001	-0.13235	0.545103	0.93083	3110088
ENMUS7	19.92588	-0.54527	0.21664	0.865167	3110009
ENMUS7	18.0849	0.000000	0.999999	0.999999	3110009
ENMUS7	17.06843	-0.49985	0.30807	0.98538	3110002
ENMUS7	39.17174	-0.73016	0.02284	0.582626	3242401
ENMUS7	18.1899	0.191913	0.34249	0.98538	3242401
ENMUS7	171.136	0.000000	0.999999	0.999999	3242401
ENMUS7	14.24672	-0.39315	0.10041	0.80111	3330040
ENMUS7	52.9156	-0.13494	0.29078	0.90789	3330040
ENMUS7	38.55911	0.514948	0.140086	0.830678	3427421
ENMUS7	18.1899	0.191913	0.34249	0.98538	3427421
ENMUS7	171.136	0.000000	0.999999	0.999999	3427421
ENMUS7	27.79807	-0.4372	0.30435	0.98538	3723141
ENMUS7	338.3409	0.315784	0.004019	0.681706	3723141
ENMUS7	76.2626	-0.3337	0.17172	0.842767	4723141
ENMUS7	104.018	0.000000	0.999999	0.999999	4723141
ENMUS7	18.56999	-0.57965	0.232875	0.86307	4831401
ENMUS7	35.95653	-0.1563	0.63879	0.93083	4831401
ENMUS7	93.96415	0.191554	0.749282	0.89894	4831402
ENMUS7	102.9612	0.000000	0.999999	0.999999	4831402
ENMUS7	18.56999	-0.57965	0.232875	0.86307	4831401
ENMUS7	74.7406	0.265541	0.319693	0.90174	4831438
ENMUS7	60.19828	-0.18268	0.55878	0.83724	4831438
ENMUS7	77.6743	-0.18268	0.55878	0.83724	4831438
ENMUS7	34.75391	0.250665	0.51118	0.927825	4921531
ENMUS7	102.9612	0.000000	0.999999	0.999999	4921531
ENMUS7	109.6346	-0.25167	0.25747	0.88023	4921531
ENMUS7	25.95719	-0.48326	0.20134	0.86412	4921531
ENMUS7	8.67234	-0.51073	0.4603	N/A	4930045
ENMUS7	104.018	0.000000	0.999999	0.999999	4930045
ENMUS7	25.74567	0.42885	0.563668	0.94126	4930045
ENMUS7	12.45064	-0.15699	0.80085	0.978226	4930044

[illegible][illegible]



ENSMUSG 318.3216 0.139556 0.306848 0.754123 9310401M01RK  
ENSMUSG 23.2212 0.204506 0.46461 0.918612 9230121J7RK  
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ENSMUSG 215.7032 -0.1237 0.441698 0.832577 9310133A01RK  
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ENSMUSUG 10.04958



ENSMGSRG_72.62439	0.183463	0.525574	0.876728	Alm2b12
ENSMGSRG_71.25322	0.09515	0.850548	0.975655	Alas
ENSMGSRG_255.332	0.050384	0.847665	0.958149	Alpocap1
ENSMGSRG_158.778	0.000000	0.137651	0.921121	Alpocap2
ENSMGSRG_158.778	0.000000	0.137651	0.921121	Alpocap2
ENSMGSRG_158.778	0.000000	0.137651	0.921121	Alpocap2
ENSMGSRG_278.2003	0.01945	0.958741	0.953255	Alp1k1
ENSMGSRG_25.30983	0.193834	0.596761	0.803236	Alp1k2
ENSMGSRG_587.0758	0.32758	0.000000	0.9101	Alp1k3
ENSMGSRG_280.2350	0.000000	0.000078	0.8181	Alp1k4
ENSMGSRG_743.2644	0.253724	0.031781	0.272023	Alk2k1
ENSMGSRG_29.24748	0.026253	0.944604	0.939383	Alk3
ENSMGSRG_29.24748	0.026253	0.944604	0.939383	Alk3
ENSMGSRG_53.74541	0.054303	0.025138	0.921249	Alp1k4
ENSMGSRG_74.74271	-0.24114	0.29484	0.774398	Alp1k5
ENSMGSRG_204.4968	0.039247	0.938204	0.878236	Alp1k6
ENSMGSRG_180.855	0.02518	0.9737	0.900808	Alp1k7
ENSMGSRG_12.09965	0.13863	0.794206	Nm	Alp1k8
ENSMGSRG_50.84616	0.001482	0.951514	0.989232	Alp1k9
ENSMGSRG_22.8183	-0.15015	0.975123	0.968536	Alp1k10
ENSMGSRG_51.28483	0.074238	0.356709	0.916139	Alp1k11
ENSMGSRG_98.9429	-0.12843	0.230501	0.710468	Alp1k12
ENSMGSRG_32.22527	0.488256	0.161508	0.59148	Alp1k13
ENSMGSRG_158.778	0.000000	0.137651	0.921121	Alp1k14
ENSMGSRG_3407.515	-0.19469	0.17272	0.10304	Alp1k15
ENSMGSRG_45.62997	0.093772	0.975056	0.84674	Alp1k16
ENSMGSRG_55.19027	-0.14045	0.925991	0.902094	Alp1k17
ENSMGSRG_93.0811	-0.05594	0.608855	0.907154	Alp1k18
ENSMGSRG_301.2149	0.221856	0.109011	0.48553	Alp1k19
ENSMGSRG_360.741	0.38214	0.010925	0.15058	Alp1k20
ENSMGSRG_227.7901	0.000000	0.000000	0.843545	Alp1k21
ENSMGSRG_180.837	0.1254	0.35743	0.788872	Alp1k22
ENSMGSRG_63.6803	0.101428	0.263272	0.1303	Alp1k23
ENSMGSRG_42.89791	0.036817	0.028982	0.255144	Alp1k24
ENSMGSRG_1617.323	0.09818	0.482078	0.890778	Alp1k25
ENSMGSRG_49.63974	0.211749	0.343577	0.793796	Alp1k26
ENSMGSRG_402.2282	0.12079	0.364077	0.75602	Alp1k27
ENSMGSRG_239.4941	0.00003	0.997191	0.999848	Alp1k28
ENSMGSRG_244.9993	-0.04979	0.734551	0.945946	Alp1k29
ENSMGSRG_214.633	-0.03227	0.728236	0.944355	Alp1k30
ENSMGSRG_58.81047	0.059076	0.682081	0.89709	Alp1k31
ENSMGSRG_2013.372	0.064987	0.053156	0.847747	Alp1k32
ENSMGSRG_27.8875	0.035149	0.16896	0.767554	Alp1k33
ENSMGSRG_76.545	0.126337	0.193607	0.555959	Alp1k34
ENSMGSRG_859.583	-0.05069	0.139453	0.911432	Alp1k35
ENSMGSRG_102.6516	0.948474	0.657494	0.92425	Alp1k36
ENSMGSRG_213.595	0.03822	0.656999	0.923292	Alp1k37
ENSMGSRG_330.5259	0.106359	0.58418	0.898738	Alp1k38
ENSMGSRG_129.1933	0.04343	0.983831	0.971719	Alp1k39
ENSMGSRG_28.2646	-0.09834	0.79028	0.954961	Alp1k40
ENSMGSRG_200.9817	-0.14567	0.840104	0.84109	Alp1k41
ENSMGSRG_12.6558	0.71611	0.59341	Nm	Alp1k42
ENSMGSRG_221.5052	0.09012	0.952925	0.902094	Alp1k43
ENSMGSRG_12.6451	0.572899	0.31855	Nm	Alp1k44
ENSMGSRG_9505.403	-0.18502	0.081627	0.470794	Alp1k45
ENSMGSRG_14.15283	0.12663	0.749964	0.91451	Alp1k46
ENSMGSRG_366.6185	0.037954	0.752573	0.950536	Alp1k47
ENSMGSRG_16751.03	-0.27586	0.525365	0.3512	

[illegible]

ENSMUSGAmhdh2	504.8616	0.001482
ENSMUSGAmr1	221.8823	-0.15015
ENSMUSGAmr2	408.9067	-0.24063
ENSMUSGAmr3	514.5917	-0.08425
ENSMUSGAmr4	9884.297	-0.14683
ENSMUSGAmh	32.22257	0.088256
ENSMUSGAmh2	44.12747	0.100777
ENSMUSGAmh3	3407.57	0.08425
ENSMUSGAmg2	452.6997	0.030475
ENSMUSGAmg3	55.19027	-0.14072
ENSMUSGAmmeer1	119.7014	-0.25886
ENSMUSGAmmeer12	514.5917	-0.08425
ENSMUSGAmn	301.2149	-0.02182
ENSMUSGAmn1	360.471	-0.33214
ENSMUSGAmn2	428.1033	-0.22349
ENSMUSGAmn3	227.601	0.068256
ENSMUSGAmn12	630.639	-0.08425
ENSMUSGAmnp2	188.883	0.101428
ENSMUSGAmnp3	1399.894	0.013967
ENSMUSGAmnp4	428.791	0.20392
ENSMUSGAmn5	161.73	0.08425
ENSMUSGAmn6	496.934	0.211749
ENSMUSGAmn1	402.2282	-0.02182
ENSMUSGAmn2	1395.235	-0.18024
ENSMUSGAmn3	239.44	-0.08425
ENSMUSGAmn10	244.9993	-0.09979
ENSMUSGAmn11	2146.533	-0.0322
ENSMUSGAmn13	198.864	-0.01563
ENSMUSGAmn15	70.65	-0.08425
ENSMUSGAmn16	201.332	0.088256
ENSMUSGAmn17	278.673	0.09356
ENSMUSGAmn4	1479.193	0.10945
ENSMUSGAmn5	3407.57	0.08425
ENSMUSGAmn6	859.5383	-0.06999
ENSMUSGAng	102.6516	0.048174
ENSMUSGAng1	437.9975	-0.041826
ENSMUSGAng2	219.073	-0.08425
ENSMUSGAng3	330.529	0.10639
ENSMUSGAng21	129.3183	0.040143
ENSMUSGAng21	28.26469	-0.09834
ENSMUSGAng212	260.9817	-0.02887
ENSMUSGAng213	12.6559	0.14556
ENSMUSGAng214	191.2143	-0.18164
ENSMUSGAng216	221.5052	-0.09092
ENSMUSGAng217	12.4651	-0.07389
ENSMUSGAng21	950.4	-0.08425
ENSMUSGAngk1	22.453	0.20009
ENSMUSGAngk2	366.6185	0.07356
ENSMUSGAngk3	167.153	0.17984
ENSMUSGAngk11a	15.3776	-0.08425
ENSMUSGAngk1a	14.15283	0.112663
ENSMUSGAngk1	45.1639	-0.10673
ENSMUSGAngk1y1	203.62	0.070887
ENSMUSGAngk15	808.68	-0.08425
ENSMUSGAngk16	2068.32	0.09149
ENSMUSGAngk1e	12.3741	-0.04683
ENSMUSGAngk2	118.092	0.21045
ENSMUSGAngkmy1	12.3741	-0.04683
ENSMUSGAngkmy2	985.978	-0.02746
ENSMUSGAngk1	590.6892	0.093346
ENSMUSGAngk1D10	134.2662	0.061427
ENSMUSGAngk1D11	258.16	-0.08425
ENSMUSGAngk1D2	145.847	-0.08425
ENSMUSGAngk1D3a	210.197	0.028213
ENSMUSGAngk1D3b	484.3403	0.245313
ENSMUSGAngk1D3c	28.26469	-0.09834
ENSMUSGAngk1D3d	148.8375	0.190132
ENSMUSGAngk1D6	825.5051	-0.12761
ENSMUSGAngk1D7	306.9475	0.126871
ENSMUSGAngk1D23	21.544	-0.08425
ENSMUSGAngk1D24	150.4309	0.31193
ENSMUSGAngk1D26	614.4775	0.172238
ENSMUSGAngk1D27	164.831	0.19624
ENSMUSGAngk1D28	128.053	0.245313
ENSMUSGAngk1D29	92.8677	0.077386
ENSMUSGAngk1D31	13.2865	0.390508
ENSMUSGAngk1D33a	168.8471	0.082265
ENSMUSGAngk1D34a	1280.653	0.093346
ENSMUSGAngk1D34b	831.235	-0.08425
ENSMUSGAngk1D34c	118.876	0.300763
ENSMUSGAngk1D35	425.4321	-0.038083
ENSMUSGAngk1D37	90.90497	-0.23037
ENSMUSGAngk1D39	121.65	-0.08425
ENSMUSGAngk1D40	152.7543	-0.08425
ENSMUSGAngk1D42	258.999	0.794987
ENSMUSGAngk1D44	416.8205	-0.10011
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ENSMUSGAngk1D46	436.1687	0.179552
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ENSMUSGAngk1D50	150.9397	0.156817
ENSMUSGAngk1D51	121.65	-0.08425
ENSMUSGAngk1D54	506.4571	0.08184
ENSMUSGAngk1D55	54.05335	-0.11063
ENSMUSGAngk1D56	144.88	-0.11063
ENSMUSGAngk1D57	121.65	-0.08425
ENSMUSGAngk1D63	502.2407	-0.2266
ENSMUSGAngk1D66	23.1094	0.2266
ENSMUSGAngk1D69	2	

1	ENSMUSG.Amhd2	446.19972	-0.08703	0.55926	0.94131
2	ENSMUSG.Amer1	226.6195	-0.17504	0.28619	0.59896
3	ENSMUSG.Amer2	97.5700	-0.2341	0.14164	0.68104
4	ENSMUSG.Amer3	10.0000	-0.0000	0.0000	0.0000
5	ENSMUSG.Amer4	9366.597	0.074761	0.71552	0.90510
6	ENSMUSG.Amer5	28.8587	-0.43564	0.61895	0.88426
7	ENSMUSG.Amerh2	37.49605	-0.10424	0.75451	0.90715
8	ENSMUSG.Amerh3	4.6913	-0.1717	0.0868	0.50081
9	ENSMUSG.Amerh4	14.0413	-0.51496	0.00000	0.00001
10	ENSMUSG.Amerh5	47.61043	-0.12319	0.324783	0.905257
11	ENSMUSG.Amerh6	106.5471	-0.34972	0.10684	0.40458
12	ENSMUSG.Amerh7	10.0000	-0.0000	0.0000	0.0000
13	ENSMUSG.Amerh8	29.42278	-0.09497	0.09711	0.604658
14	ENSMUSG.Amerh9	388.2211	-0.162909	0.729387	0.882356
15	ENSMUSG.Amer10	334.094	-0.175021	0.00000	0.809838
16	ENSMUSG.Amer11	1693.147	-0.16548	0.16387	0.87471
17	ENSMUSG.Amer12	10.0000	-0.0000	0.0000	0.0000
18	ENSMUSG.Amer13	10.0000	-0.0000	0.0000	0.0000
19	ENSMUSG.Amer14	10.0000	-0.0000	0.0000	0.0000
20	ENSMUSG.Amer15	10.0000	-0.0000	0.0000	0.0000
21	ENSMUSG.Amer16	10.0000	-0.0000	0.0000	0.0000
22	ENSMUSG.Amer17	10.0000	-0.0000	0.0000	0.0000
23	ENSMUSG.Amer18	10.0000	-0.0000	0.0000	0.0000
24	ENSMUSG.Amer19	10.0000	-0.0000	0.0000	0.0000
25	ENSMUSG.Amer20	10.0000	-0.0000	0.0000	0.0000
26	ENSMUSG.Amer21	10.0000	-0.0000	0.0000	0.0000
27	ENSMUSG.Amer22	10.0000	-0.0000	0.0000	0.0000
28	ENSMUSG.Amer23	10.0000	-0.0000	0.0000	0.0000
29	ENSMUSG.Amer24	10.0000	-0.0000	0.0000	0.0000
30	ENSMUSG.Amer25	10.0000	-0.0000	0.0000	0.0000
31	ENSMUSG.Amer26	10.0000	-0.0000	0.0000	0.0000
32	ENSMUSG.Amer27	10.0000	-0.0000	0.0000	0.0000
33	ENSMUSG.Amer28	10.0000	-0.0000	0.0000	0.0000
34	ENSMUSG.Amer29	10.0000	-0.0000	0.0000	0.0000
35	ENSMUSG.Amer30	10.0000	-0.0000	0.0000	0.0000
36	ENSMUSG.Amer31	10.0000	-0.0000	0.0000	0.0000
37	ENSMUSG.Amer32	10.0000	-0.0000	0.0000	0.0000
38	ENSMUSG.Amer33	10.0000	-0.0000	0.0000	0.0000
39	ENSMUSG.Amer34	10.0000	-0.0000	0.0000	0.0000
40	ENSMUSG.Amer35	10.0000	-0.0000	0.0000	0.0000
41	ENSMUSG.Amer36	10.0000	-0.0000	0.0000	0.0000
42	ENSMUSG.Amer37	10.0000	-0.0000	0.0000	0.0000
43	ENSMUSG.Amer38	10.0000	-0.0000	0.0000	0.0000
44	ENSMUSG.Amer39	10.0000	-0.0000	0.0000	0.0000
45	ENSMUSG.Amer40	10.0000	-0.0000	0.0000	0.0000
46	ENSMUSG.Amer41	10.0000	-0.0000	0.0000	0.0000
47	ENSMUSG.Amer42	10.0000	-0.0000	0.0000	0.0000
48	ENSMUSG.Amer43	10.0000	-0.0000	0.0000	0.0000
49	ENSMUSG.Amer44	10.0000	-0.0000	0.0000	0.0000
50	ENSMUSG.Amer45	10.0000	-0.0000	0.0000	0.0000
51	ENSMUSG.Amer46	10.0000	-0.0000	0.0000	0.0000
52	ENSMUSG.Amer47	10.0000	-0.0000	0.0000	0.0000
53	ENSMUSG.Amer48	10.0000	-0.0000	0.0000	0.0000
54	ENSMUSG.Amer49	10.0000	-0.0000	0.0000	0.0000
55	ENSMUSG.Amer50	10.0000	-0.0000	0.0000	0.0000
56	ENSMUSG.Amer51	10.0000	-0.0000	0.0000	0.0000
57	ENSMUSG.Amer52	10.0000	-0.0000	0.0000	0.0000
58	ENSMUSG.Amer53	10.0000	-0.0000	0.0000	0.0000
59	ENSMUSG.Amer54	10.0000	-0.0000	0.	



ENSMUSG 6743.051 0.16832 0.091088 0.463586 Apb1b  
ENSMUSG 2652.178 0.180077 0.05701 0.368322 Apb1b  
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ENSMUSG 9191.293 0.212373 0.236933 0.684303 Ap2a1  
ENSMUSG 6483.729 0.186948 0.049572 0.340062 Ap2a2  
ENSMUSG 10020.8 0.18003 0.12443 0.687844 Apb1  
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ENSMUSG 414.582 0.006408 0.958374 0.993874 Apb1  
ENSMUSG 1447.812 0.207297 0.052319 0.35132 Apb1  
ENSMUSG 3173.942 0.257558 0.029342 0.258647 Apb2  
ENSMUSG 5554.325 0.254795 0.005576 0.096929 Apb1  
ENSMUSG 1680.752 0.026592 0.977078 0.997428 Ap3m1  
ENSMUSG 3384.45 0.076667 0.433508 0.828346 Ap3m2  
ENSMUSG 1795.812 0.020332 0.86237 0.970555 Apb1  
ENSMUSG 3178.293 0.009235 0.255181 0.743798 Apb2  
ENSMUSG 69.31028 0.248975 0.313282 0.76033 Apb1  
ENSMUSG 368.5337 -0.00654 0.9611 0.994009 Ap4e1  
ENSMUSG 764.5979 0.131305 0.233553 0.681508 Apb1  
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ENSMUSG 70.52935 0.115948 0.640128 0.916344 Apb1  
ENSMUSG 434.1468 0.046629 0.700963 0.97433 Ap5m1  
ENSMUSG 393.0522 -0.12956 0.283405 0.31786 Ap5m1  
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ENSMUSG 347.9258 0.325333 0.018244 0.293522 Apb1  
ENSMUSG 10845.88 0.189484 0.029686 0.261121 Apb1  
ENSMUSG 15435.05 -0.22362 0.233648 0.681508 Apb2  
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ENSMUSG 14225.44 0.029525 0.255181 0.743798 Apb2  
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ENSMUSG 541.8325 0.045498 0.860152 0.930983 Apb1  
ENSMUSG 582.6048 0.007307 0.74634 0.955606 Apb1  
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ENSMUSG 11.0228 0.082129 0.018244 0.293522 Apb1  
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ENSMUSG 17.02559 -0.78051 0.137892 NA Apb1  
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ENSMUSG 7430.516 0.16974 0.30216 0.3506 NA Apb1  
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ENSMUSG 518.723 0.049194 0.562978 0.889738 Arc1  
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ENSMUSG 902.5488 0.046818 0.657191 0.924142 Arc1  
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ENSMUSG 460.2811 0.01035 0.37357 0.96962 Apb1  
ENSMUSG 2372.469 0.157717 0.006827 0.012514 Arc1  
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ENSMUSG 1830.697 -0.07373 0.482297 0.855884 Arc1  
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ENSMUSG 2785.973 0.153199 0.10834 0.497337 Arc1  
ENSMUSG 894.389 0.00797 0.917039 0.993415 Arc1  
ENSMUSG 44.2652 -0.46543 0.135601 0.540938 Arc1  
ENSMUSG 2884.401 -0.13471 0.289451 0.738693 Arc1  
ENSMUSG 2175.091 0.12462 0.0416 0.862027 Arc1  
ENSMUSG 626.515 0.073351 0.581786 0.897862 Arc1  
ENSMUSG 328.0915 0.084362 0.525451 0.862027 Arc1  
ENSMUSG 2097.418 0.162942 0.171554 0.606091 Arc1  
ENSMUSG 136.2941 0.123462 0.0416 0.862027 Arc1  
ENSMUSG 625.7935 0.0837 0.493512 0.862027 Arc1  
ENSMUSG 501.3161 -0.09691 0.437888 0.830072 Arc1  
ENSMUSG 135.043 0.213 0.213442 0.97319 Arc1  
ENSMUSG 1407.967 -0.14008 0.01035 0.37357 0.96962 Apb1  
ENSMUSG 6904.072 0.087879 0.306077 0.753712 Arc1  
ENSMUSG 226.3544 -0.02232 0.899291 0.985633 Arc1  
ENSMUSG 6716.117 -0.04928 0.552827 0.886141 Arc1  
ENSMUSG 363.183 -0.07395 0.520297 0.951851 Arc1  
ENSMUSG 232.1277 0.02819 0.085596 0.451059 Arc1  
ENSMUSG 2528.321 0.221556 0.013363 0.16868 Arc1  
ENSMUSG 679.2899 -0.05697 0.631772 0.914073 Arc1  
ENSMUSG 25.66316 -0.25709 0.489928 0.89319 Arc1  
ENSMUSG 711.7408 0.10117 0.24745 0.796768 Arc1  
ENSMUSG 330.1835 0.238891 0.01014 0.484746 Arc1  
ENSMUSG 1508.005 0.189269 0.083427 0.445566 Arc1  
ENSMUSG 7073.198 0.051993 0.520271 0.875186 Arc1  
ENSMUSG 13319.43 0.12732 0.01035 0.37357 0.96962 Apb1  
ENSMUSG 7262.825 0.203547 0.015861 0.186421 Arc1  
ENSMUSG 51.40395 0.44818 0.30072 0.74995 Arc1  
ENSMUSG 2351.567 0.394031 0.00808 0.029574 Arc1  
ENSMUSG 248.5997 0.132462 0.01035 0.37357 0.96962 Apb1  
ENSMUSG 9.22093 0.04771 0.489297 NA Arc1  
ENSMUSG 584.7651 0.068439 0.522229 0.875186 Arc1  
ENSMUSG 5150.749 0.164583 0.088382 0.451144 Arc1  
ENSMUSG 539.226 -0.10706 0.73081 0.798768 Arc1  
ENSMUSG 6545.235 0.02629 0.12462 0.0416 0.862027 Arc1  
ENSMUSG 157.158 0.04128 0.898985 0.985633 Arc1  
ENSMUSG 59.4204 -0.02102 0.933615 0.993194 Arc1  
ENSMUSG 14963.9 0.078456 0.282376 0.3186 Arc1  
ENSMUSG 489.7378 0.01035 0.37357 0.96962 Apb1  
ENSMUSG 2587.425 0.07514 0.145679 0.30204 Arc1  
ENSMUSG 2249.606 0.310919 0.067715 0.40256 Arc1  
ENSMUSG 2504.654 0.03715 0.660527 0.924795 Arc1  
ENSMUSG 2976.108 0.08975 0.429279 0.83758 Arc1  
ENSMUSG 1347.462 0.142932 0.12462 0.0416 0.862027 Arc1  
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ENSMUSG 1771.948 0.01035 0.37357 0.96962 Apb1  
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ENSMUSG 4320.83 0.05798 0.515951 0.872701 Arc1  
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ENSMUSG 4892.475 -0.13563 0.341831 0.909146 Ap2m1  
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ENSMUSG 2576.505 -0.00576 0.828304 0.913234 Apb2  
ENSMUSG 4827.339 -0.00854 0.553586 0.939565 Apb1  
ENSMUSG 15159.861 -0.02067 0.845474 0.956649 Apb1  
ENSMUSG 2918.151 -0.00842 0.468587 0.923329 Apb1  
ENSMUSG 1608.365 -0.03482 0.89007 0.980224 Apb1  
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ENSMUSG 69.49371 0.346744 0.246409 0.877904 Apb1  
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ENSMUSG 743.7728 0.125702 0.40081 0.917257 Apb1  
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ENSMUSG 529.84 0.020033 0.850736 0.958551 Apb1  
ENSMUSG 15448.11 0.009053 0.218075 0.966887 Apb2  
ENSMUSG 786.1053 0.160494 0.206439 0.884412 Apb1  
ENSMUSG 12086.99 -0.00322 0.973991 0.996416 Apb1  
ENSMUSG 289.932 -0.02425 0.878968 0.98964 Apb1b  
ENSMUSG 807.3333 -0.03483 0.7824 0.976106 Apb2  
ENSMUSG 859.0195 0.110668 0.074215 0.523329 Apb1  
ENSMUSG 466.6071 -0.07829 0.398633 0.937738 Apb1  
ENSMUSG 3855.112 -0.01896 0.868861 0.987487 Apb2  
ENSMUSG 2711.328 0.736391 0.091254 0.93377 Apb1  
ENSMUSG 483.0776 0.011298 0.273732 0.93377 Apb1  
ENSMUSG 506.8326 -0.10848 0.893088 0.973538 Apb1  
ENSMUSG 118.0308 0.090702 0.588644 0.956205 Apb2  
ENSMUSG 1173.532 0.193144 0.161753 0.837724 Apb1  
ENSMUSG 1020.834 0.129512 0.210561 0.641362 Apb2  
ENSMUSG 251.848 0.158192 0.373354 0.915451 Apb1c  
ENSMUSG 1766.55 -0.02118 0.888736 0.988097 Apb1  
ENSMUSG 280.122 -0.13443 0.933866 0.917257 Apb1  
ENSMUSG 13.364 0.210202 0.01035 0.37357 0.96962 Apb1  
ENSMUSG 326.257 -0.47122 0.004762 0.286871 Apb1  
ENSMUSG 54.1964 -0.3027 0.8423 0.987487 Apb1  
ENSMUSG 65827.33 -0.02812 0.83236 0.98075 Apb1  
ENSMUSG 24133.06 0.07781 0.76476 0.942912 Apb2  
ENSMUSG 1884.658 0.018198 0.88198 0.997428 Apb1  
ENSMUSG 35.7025 0.02862 0.913461 0.997428 Apb2  
ENSMUSG 172.2332 0.02769 0.913461 0.997428 Apb2  
ENSMUSG 158.226 -0.19017 0.922902 0.933866 Apb1  
ENSMUSG 84.6031 0.19822 0.01035 0.37357 0.96962 Apb1  
ENSMUSG 65.1307 0.427159 0.128571 0.81925 Apb1  
ENSMUSG 20.2652 -0.80775 0.303671 0.62814 Apb3  
ENSMUSG 410.0796 0.197996 0.13313 0.829212 Apb1  
ENSMUSG 27.9901 -0.03444 0.913461 0.997428 Apb1  
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ENSMUSG 72.04629 0.262195 0.218594 0.97637 Apb1  
ENSMUSG 143.1808 0.17049 0.45124 0.92202 Apb1  
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ENSMUSG 85.21084 -0.14558 0.25967 0.93474 Apb1  
ENSMUSG 5484.68 0.17457 0.925564 0.83971 Apb1  
ENSMUSG 2490.206 0.082129 0.01035 0.37357 0.96962 Apb1  
ENSMUSG 1864.798 0.00809 0.94999 0.94798 Apb1  
ENSMUSG 5634.31 -0.01842 0.889187 0.988097 Apb2  
ENSMUSG 558.957 -0.10282 0.47273 0.932329 Apb1  
ENSMUSG 817.149 0.18247 0.01035 0.37357 0.96962 Apb1  
ENSMUSG 1159.781 0.24661 0.69036 0.96071 Apb1  
ENSMUSG 957.3558 0.018229 0.897233 0.99558 Apb1  
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ENSMUSG 255.701 -0.0163 0.913461 0.997428 Apb1  
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ENSMUSG 4750.297 -0.04622 0.6586 0.90525 Arc1  
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ENSMUSG 129.313 0.01035 0.37357 0.96962 Apb1  
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ENSMUSG 294.905 -0.0742 0.49157 0.880611 Arc1  
ENSMUSG 26.151 -0.12425 0.889187 0.988097 Arc1  
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ENSMUSG 494.801 -0.0742 0.49157 0.880611 Arc1  
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ENSMUSG 45.0014 0.562978 0.889738 Arc1  
ENSMUSG 294.905 -0.0742 0.49157 0.880611 Arc1  
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ENSMUSG 40.582 0.046818 0.657191 0.924142 Arc1  
ENSMUSG 494.801 -0.0742 0.49157 0.880611 Arc1  
ENSMUSG 129.313 0.01035 0.37357 0.96962 Apb1  
ENSMUSG 1129.313 0.02594 0.802369 0.962119 Arc1  
ENSMUSG 45.0014 0.562978 0.889738 Arc1  
ENSMUSG 294.905 -0.0742 0.49157 0.880611 Arc1  
ENSMUSG 26.151 -0.12425 0.889187 0.988097 Arc1  
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ENSMUSG 494.801 -0.0742 0.49157 0.880611 Arc1  
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ENSMUSG 1129.313 0.02594 0.802369 0.962119 Arc1  
EN



ENSMUSGE	170.0559	0.194924	0.263356	0.886133	Ar1d3a
ENSMUSGE	175.7251	0.084852	0.614313	0.917751	Ar1d3b
ENSMUSGE	927.0412	0.187417	0.000000	0.908986	Ar1d4a
ENSMUSGE	144.1217	0.529911	0.252551	0.917751	Ar1d4b
ENSMUSGE	435.0895	-0.485095	-0.000000	0.873724	Ar1d5a
ENSMUSGE	614.0939	0.233769	0.009244	0.402642	Ar1d5b
ENSMUSGE	2173.0088	0.033272	0.64441	0.903503	Arh1
ENSMUSGE	7086.051	-0.004141	-0.000000	0.983545	Arh1a
ENSMUSGE	2472.578	0.383309	0.000000	0.983545	Arh1b
ENSMUSGE	763.4488	0.112127	0.396769	0.912757	Ark2n
ENSMUSGE	2125.46	-0.02303	0.845018	0.983683	Ar1
ENSMUSGE	763.8805	-0.000000	0.314598	0.922452	Ar1a
ENSMUSGE	26.77268	0.031302	0.974776	0.916526	Ar1w1
ENSMUSGE	327.3698	-0.121	0.403331	0.912757	Ar1w2
ENSMUSGE	766.5836	0.01499	0.899101	0.905058	Ar1lep
ENSMUSGE	523.9447	-0.0373	0.82178	0.971898	Ar15
ENSMUSGE	133.338	-0.004381	0.000000	0.971898	Ar15a
ENSMUSGE	117.166	-0.1876	0.190043	0.953555	Ar1
ENSMUSGE	7884.93	-0.1907	0.173436	0.842431	Ar12bp
ENSMUSGE	250.861	-0.19957	0.21063	0.851616	Ar1
ENSMUSGE	133.838	-0.000000	0.000000	0.971898	Ar15a
ENSMUSGE	1338.63	0.176794	0.365266	0.914449	Ar1d
ENSMUSGE	390.8717	-0.06320	0.000225	0.939463	Ar1d
ENSMUSGE	235.659	0.63002	0.791245	0.97681	Ar15
ENSMUSGE	65.0111	-0.000000	0.000000	0.971898	Ar15a
ENSMUSGE	369.973	-0.08279	0.631626	0.953251	Ar1
ENSMUSGE	102.123	0.087097	0.571965	0.953251	Ar1a
ENSMUSGE	592.877	-0.000000	0.000000	0.971898	Ar15a
ENSMUSGE	29.8559	0.040392	0.768175	0.974236	Ar15a
ENSMUSGE	7080.937	-0.03197	0.795009	0.97681	Ar1b
ENSMUSGE	566.941	-0.000000	0.000000	0.971898	Ar15a
ENSMUSGE	1539.785	-0.000000	0.000000	0.996416	Ar16
ENSMUSGE	443.307	-0.02533	0.857485	0.985884	Ar10
ENSMUSGE	204.9898	0.703683	0.704866	0.967787	Ar10
ENSMUSGE	136.908	-0.000000	0.000000	0.971898	Ar15a
ENSMUSGE	470.4634	-0.000000	0.956917	0.944499	Ar5a
ENSMUSGE	556.5466	-0.06228	0.680518	0.955115	Ar6c
ENSMUSGE	193.7644	-0.14438	0.418625	0.912757	Ar1
ENSMUSGE	131.166	-0.0757	0.40693	0.912757	Ar8
ENSMUSGE	112.017	-0.000000	0.000000	0.971898	Ar15a
ENSMUSGE	112.017	-0.0318	0.767646	0.957517	Ar10c1
ENSMUSGE	2461.347	0.05828	0.612934	0.943324	Ar10c1
ENSMUSGE	1027.413	-0.01696	0.42913	0.912757	Ar10c1
ENSMUSGE	136.751	-0.000000	0.000000	0.971898	Ar15a
ENSMUSGE	366.795	-0.04948	0.637947	0.953503	Ar5c
ENSMUSGE	80.8574	0.133461	0.614179	0.957117	Ar10c1
ENSMUSGE	18.80016	0.263678	0.755066	0.947788	Ar10c1
ENSMUSGE	102.169	-0.000000	0.000000	0.971898	Ar15a
ENSMUSGE	102.169	-0.05478	0.247337	0.97604	Ar10c1
ENSMUSGE	323.7774	-0.06296	0.613137	0.959349	Ar11
ENSMUSGE	110.4295	0.140263	0.424629	0.977399	Ar11
ENSMUSGE	428.773	-0.000000	0.000000	0.971898	Ar15a
ENSMUSGE	428.773	-0.15165	0.262737	0.867404	Ar1c1a
ENSMUSGE	159.9203	-0.11066	0.380043	0.916995	Ar1c1a
ENSMUSGE	257.12	-0.000000	0.755092	0.942152	Ar1c2
ENSMUSGE	101.881	-0.000000	0.000000	0.971898	Ar15a
ENSMUSGE	256.923	-0.0884			

ENSMUSGAr2c	2678.356	0.347334	0.000598	0.022994	ENSMUSGAr2c
ENSMUSGAr2n	829.9453	0.083383	0.813939	0.829883	ENSMUSGAr2n
ENSMUSGArC1	2301.776	0.000707	0.514495	0.872055	ENSMUSGArC1
ENSMUSGArC2	200.176	0.000000	0.4422	0.000000	ENSMUSGArC2
ENSMUSGArC3	200.176	0.000000	0.4422	0.000000	ENSMUSGArC3
ENSMUSGArC4	200.176	0.000000	0.4422	0.000000	ENSMUSGArC4
ENSMUSGArC5	200.176	0.000000	0.4422	0.000000	ENSMUSGArC5
ENSMUSGArC6	200.176	0.000000	0.4422	0.000000	ENSMUSGArC6
ENSMUSGArC7	200.176	0.000000	0.4422	0.000000	ENSMUSGArC7
ENSMUSGArC8	200.176	0.000000	0.4422	0.000000	ENSMUSGArC8
ENSMUSGArC9	200.176	0.000000	0.4422	0.000000	ENSMUSGArC9
ENSMUSGArC10	200.176	0.000000	0.4422	0.000000	ENSMUSGArC10
ENSMUSGArC11	200.176	0.000000	0.4422	0.000000	ENSMUSGArC11
ENSMUSGArC12	200.176	0.000000	0.4422	0.000000	ENSMUSGArC12
ENSMUSGArC13	200.176	0.000000	0.4422	0.000000	ENSMUSGArC13
ENSMUSGArC14	200.176	0.000000	0.4422	0.000000	ENSMUSGArC14
ENSMUSGArC15	200.176	0.000000	0.4422	0.000000	ENSMUSGArC15
ENSMUSGArC16	200.176	0.000000	0.4422	0.000000	ENSMUSGArC16
ENSMUSGArC17	200.176	0.000000	0.4422	0.000000	ENSMUSGArC17
ENSMUSGArC18	200.176	0.000000	0.4422	0.000000	ENSMUSGArC18
ENSMUSGArC19	200.176	0.000000	0.4422	0.000000	ENSMUSGArC19
ENSMUSGArC20	200.176	0.000000	0.4422	0.000000	ENSMUSGArC20
ENSMUSGArC21	200.176	0.000000	0.4422	0.000000	ENSMUSGArC21
ENSMUSGArC22	200.176	0.000000	0.4422	0.000000	ENSMUSGArC22
ENSMUSGArC23	200.176	0.000000	0.4422	0.000000	ENSMUSGArC23
ENSMUSGArC24	200.176	0.000000	0.4422	0.000000	ENSMUSGArC24
ENSMUSGArC25	200.176	0.000000	0.4422	0.000000	ENSMUSGArC25
ENSMUSGArC26	200.176	0.000000	0.4422	0.000000	ENSMUSGArC26
ENSMUSGArC27	200.176	0.000000	0.4422	0.000000	ENSMUSGArC27
ENSMUSGArC28	200.176	0.000000	0.4422	0.000000	ENSMUSGArC28
ENSMUSGArC29	200.176	0.000000	0.4422	0.000000	ENSMUSGArC29
ENSMUSGArC30	200.176	0.000000	0.4422	0.000000	ENSMUSGArC30
ENSMUSGArC31	200.176	0.000000	0.4422	0.000000	ENSMUSGArC31
ENSMUSGArC32	200.176	0.000000	0.4422	0.000000	ENSMUSGArC32
ENSMUSGArC33	200.176	0.000000	0.4422	0.000000	ENSMUSGArC33
ENSMUSGArC34	200.176	0.000000	0.4422	0.000000	ENSMUSGArC34
ENSMUSGArC35	200.176	0.000000	0.4422	0.000000	ENSMUSGArC35
ENSMUSGArC36	200.176	0.000000	0.4422	0.000000	ENSMUSGArC36
ENSMUSGArC37	200.176	0.000000	0.4422	0.000000	ENSMUSGArC37
ENSMUSGArC38	200.176	0.000000	0.4422	0.000000	ENSMUSGArC38
ENSMUSGArC39	200.176	0.000000	0.4422	0.000000	ENSMUSGArC39
ENSMUSGArC40	200.176	0.000000	0.4422	0.000000	ENSMUSGArC40
ENSMUSGArC41	200.176	0.000000	0.4422	0.000000	ENSMUSGArC41
ENSMUSGArC42	200.176	0.000000	0.4422	0.000000	ENSMUSGArC42
ENSMUSGArC43	200.176	0.000000	0.4422	0.000000	ENSMUSGArC43
ENSMUSGArC44	200.176	0.000000	0.4422	0.000000	ENSMUSGArC44
ENSMUSGArC45	200.176	0.000000	0.4422	0.000000	ENSMUSGArC45
ENSMUSGArC46	200.176	0.000000	0.4422	0.000000	ENSMUSGArC46
ENSMUSGArC47	200.176	0.000000	0.4422	0.000000	ENSMUSGArC47
ENSMUSGArC48	200.176	0.000000	0.4422	0.000000	ENSMUSGArC48
ENSMUSGArC49	200.176	0.000000	0.4422	0.000000	ENSMUSGArC49
ENSMUSGArC50	200.176				

2477.578	0.38319	0.000923	0.102962
763.4488	0.112127	0.396769	0.914757
2125.46	-0.20303	0.845018	0.983863
338.8895	0.18214	0.000000	0.914757
26.72708	-0.01307	0.974776	0.996416
327.3698	0.1121	0.430331	0.917257
766.5836	-0.14199	0.899101	0.990558
523.9147	-0.03375	0.120078	0.979108
568.3388	-0.11245	0.420339	0.917257
1171.66	-0.17816	0.100034	0.857355
7884.993	-0.17908	0.173436	0.843417
2505.861	-0.19957	0.126263	0.815516
425.457	0.13224	0.330755	0.898338
138.633	0.167694	0.365266	0.914449
900.8717	-0.13426	0.000225	0.903963
2345.659	0.030002	0.791245	0.976881
492.708	-0.05141	0.640309	0.947749
65.02911	-0.08273	0.032732	0.637512
369.6793	-0.08279	0.631266	0.953251
11395.32	-0.08709	0.557168	0.939565
810.6408	0.08254	0.570783	0.943329
592.877	0.040392	0.768175	0.974436
292.8659	0.201558	0.126469	0.862216
7080.937	-0.31397	0.795609	0.976881
454.18	-0.07741	0.49609	0.917257
159.785	-0.00043	0.97314	0.996416
443.3077	-0.02533	0.857485	0.985884
204.9489	-0.07388	0.704866	0.962677
24.9094	0.302795	0.04609	0.943329
470.4634	0.085777	0.565917	0.941499
556.5466	-0.06228	0.680258	0.958115
193.7664	-0.14438	0.418625	0.917257
125.704	-0.09757	0.49609	0.917257
601.4259	-0.02115	0.988043	0.979887
1121.017	-0.09318	0.776646	0.975717
2641.347	-0.07288	0.621944	0.953234
1007.413	-0.245897	0.04609	0.943329
1552.71	-0.13358	0.370495	0.915491
366.7925	-0.06968	0.637947	0.953903
80.47958	0.133461	0.614179	0.951177
19.88016	-0.05706	0.957066	0.994798
452.2048	-0.05645	0.660315	0.947749
1021.169	-0.215478	0.247337	0.979004
323.7774	-0.06296	0.663117	0.956349
1107.395	-0.14263	0.246269	0.877399
13560.27	-0.16127	0.914147	0.947918
4282.773	-0.05165	0.223677	0.867044
1592.903	-0.11066	0.380043	0.916995
4257.12	-0.70709	0.570952	0.942912
2301.88	-0.19377	0.178521	0.947918
2569.23	-0.08842	0.401956	0.917257
2005.911	-0.08742	0.480979	0.925673
1897.513	-0.12693	0.92448	0.898538
490.769	-0.20515	0.04609	0.943329
462.892	-0.12386	0.045685	0.917257
10761.2	-0.04484	0.734267	0.967228
18.54665	-0.00004	0.321512	0.904019
17850.14	-0.06796	0.04609	0.943329
1240.462	0.121117	0.403759	0.917257
228.6398	-0.0088	0.966065	0.99594
403.7429	-0.12297	0.510962	0.925673
87.1949	-0.245897	0.04609	0.943329
298.374	-0.021991	0.840685	0.982538
1279.821	-0.154934	0.370477	0.915491
6033.275	-0.156575	0.333978	0.907907
71.0862	-0.08323	0.627031	0.953234
64.83679	-0.08323	0.627031	0.953234
41.01651	-0.47813	0.14941	0.83339
374.8986	-0.11981	0.64292	0.923329
192.8512	-0.059882	0.045962	0.664751
12.285027	-0.013401	0.914147	0.947918
142.7341	-0.038668	0.853978	0.98563
854.3158	-0.18703	0.237782	0.87259
529.9678	-0.15285	0.263277	0.886134
71.4161	-0.004908	0.947918	0



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ENSMUSG 5613.926 -0.25175 0.065612 0.72362 Atf9a  
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ENSMUSG 4801.863 -0.22043 0.06287 0.73642 Atf9a  
ENSMUSG 2551.064 -0.09871 0.480492 0.921166 Atf9a  
ENSMUSG 2846.04 -0.24517 0.57245 0.942531 Atf9a  
ENSMUSG 15411.39 0.019632 0.918362 0.9936 Atf9a  
ENSMUSG 278.633 0.070272 0.87275 0.9718 Atf9a  
ENSMUSG 1674.812 0.170726 0.797835 0.88838 Atf9a  
ENSMUSG 10168.19 -0.16892 0.207007 0.88687 Atf9a  
ENSMUSG 1969.3 -0.10204 0.000000 0.000000 Atf9a  
ENSMUSG 4801.167 -0.0664 0.509033 0.94475 Atf9a  
ENSMUSG 14.8354 0.60631 0.27939 0.891468 Atf9a  
ENSMUSG 1758.399 0.051034 0.983397 0.9542 Atf9a  
ENSMUSG 1334.39 -0.00784 0.95511 0.97918 Atf9a  
ENSMUSG 4956.578 -0.15123 0.000000 0.000000 Atf9a  
ENSMUSG 1042.867 0.129062 0.041546 0.917257 Atf9a  
ENSMUSG 1480.59 -0.034 0.810754 0.978779 Atf9a  
ENSMUSG 6370.019 -0.07755 0.154866 0.930939 Atf9a  
ENSMUSG 8617.492 -0.09644 0.000000 0.000000 Atf9a  
ENSMUSG 16.859 0.2037 0.079902 0.9718 Atf9a  
ENSMUSG 26.7412 -0.42222 0.36631 0.94223 Atf9a  
ENSMUSG 3262.507 -0.11706 0.36261 0.94223 Atf9a  
ENSMUSG 1516.468 -0.17179 0.29124 0.94223 Atf9a  
ENSMUSG 2032.562 -0.35938 0.00301 0.91289 Atf9a  
ENSMUSG 1595.94 -0.06268 0.76592 0.9564 Atf9a  
ENSMUSG 3994.53 -0.17198 0.88118 0.88755 Atf9a  
ENSMUSG 3034.94 -0.09428 0.74288 0.93239 Atf9a  
ENSMUSG 136.408 -0.23902 0.79346 0.93239 Atf9a  
ENSMUSG 125.6087 0.203868 0.309104 0.88538 Atf9a  
ENSMUSG 202.181 -0.28165 0.81059 0.97918 Atf9a  
ENSMUSG 6728.072 0.197826 0.26426 0.88507 Atf9a  
ENSMUSG 1863.398 -0.20146 0.000000 0.000000 Atf9a  
ENSMUSG 144.1861 -0.04842 0.96191 0.98631 Atf9a  
ENSMUSG 2276.276 -0.02403 0.875585 0.98644 Atf9a  
ENSMUSG 148.722 -0.5276 0.36234 0.91422 Atf9a  
ENSMUSG 148.53 -0.16456 0.36234 0.91422 Atf9a  
ENSMUSG 2146.759 0.136993 0.5316 0.912093 Atf9a  
ENSMUSG 653.1735 -0.09724 0.5169 0.930939 Atf9a  
ENSMUSG 333.238 -0.04027 0.75193 0.97185 Atf9a  
ENSMUSG 258.751 0.06568 0.73795 0.97185 Atf9a  
ENSMUSG 444.769 0.11022 0.000000 0.000000 Atf9a  
ENSMUSG 2341.911 0.117453 0.538808 0.913759 Atf9a  
ENSMUSG 49.4027 0.135363 0.340824 0.907972 Atf9a  
ENSMUSG 6155.334 0.160917 0.134089 0.97007 Atf9a  
ENSMUSG 2164.819 0.171428 0.912491 0.90029 Atf9a  
ENSMUSG 3958.579 0.09585 0.40321 0.917257 Atf9a  
ENSMUSG 2299.647 0.092108 0.38356 0.917257 Atf9a  
ENSMUSG 1279.56 0.152147 0.170816 0.888062 Atf9a  
ENSMUSG 403.6553 0.072904 0.063663 0.95676 Atf9a  
ENSMUSG 1620.893 -0.09604 0.466362 0.921734 Atf9a  
ENSMUSG 621.6319 -0.05031 0.55031



ENSGMUSP	1362.706	-0.00778	0.849473	0.99352	Av1
ENSGMUSP	12.48738	1.08849	0.31163	N/A	Avp
ENSGMUSP	357.2525	-0.15402	0.31526	0.76288	Avp1
ENSGMUSP	407.6272	-0.00000	0.00000	0.00000	Avp2
ENSGMUSP	33.29527	-0.74274	0.03503	0.29084	Avp10
ENSGMUSP	160.7045	-0.0032	0.98422	0.9781	Avp1454
ENSGMUSP	308.984	0.17486	-0.39863	0.1818	Avp20941
ENSGMUSP	17.8109	-0.7881	-0.297	0.59328	Avp2522
ENSGMUSP	40.0072	-0.00000	0.00000	0.00000	Avp2523
ENSGMUSP	465.3272	-0.0327	0.6977	0.9797	Avp25458
ENSGMUSP	65.9533	0.18348	0.85978	0.97418	Avp25252
ENSGMUSP	89.1344	0.15873	0.00000	0.00000	Avp25254
ENSGMUSP	897.1338	-0.0373	0.83711	0.971	Avp25255
ENSGMUSP	100.642	0.13387	0.16132	0.9311	Avp25256
ENSGMUSP	717.705	-0.01381	0.89548	0.98512	Avp25257
ENSGMUSP	1673.762	0.03115	0.7083	0.95652	Avp25258
ENSGMUSP	515.425	-0.00000	0.00000	0.00000	Avp25259
ENSGMUSP	945.8637	0.12492	0.53178	0.78345	Avp25260
ENSGMUSP	16.9551	0.25356	0.51201	0.8104	B13002431K1R
ENSGMUSP	48.08935	-0.0502	0.18402	0.62144	B13002431K1R
ENSGMUSP	19.455	-0.00000	0.00000	0.00000	B13002431K1R
ENSGMUSP	9.947126	-0.5813	0.31672	N/A	B13002100K8R
ENSGMUSP	11.6876	-0.60408	0.92368	N/A	B13002112K8R
ENSGMUSP	76.32039	-0.47079	0.04948	0.39773	B1300220607K1R
ENSGMUSP	10.00000	-0.00000	0.00000	0.00000	B1300220607K1R
ENSGMUSP	11.47238	-0.57577	0.70719	N/A	B130020811K1R
ENSGMUSP	204.4928	-0.20879	0.18388	0.62087	B1300218201K1R
ENSGMUSP	237.829	-0.0455	0.80188	0.96186	B13002120211K1R
ENSGMUSP	10.4561	-0.00000	0.00000	0.00000	B13002120211K1R
ENSGMUSP	92.39527	0.12473	0.12043	0.52845	B1300230703K1R
ENSGMUSP	100.445	-0.02697	0.00000	0.97879	B1300231002K1R
ENSGMUSP	17.63207	0.16628	0.70376	N/A	B1300231002K1R
ENSGMUSP	45.4561	-0.00000	0.00000	0.00000	B1300231002K1R
ENSGMUSP	45.4561	-0.00000	0.00000	0.00000	B1300231002K1R
ENSGMUSP	1236.49	-0.45884	0.00000	0.094254	B1glnp1
ENSGMUSP	437.5117	-0.07662	0.56332	0.98037	B1glnp2
ENSGMUSP	10.4561	-0.00000	0.00000	0.00000	B1glnp3
ENSGMUSP	1014.53	-0.58118	0.00000	0.01182	B1glnp4
ENSGMUSP	140.1902	-0.28423	0.12666	0.51453	B1glnp5
ENSGMUSP	1392.682	-0.31116	0.01037	0.14529	B1glnp6
ENSGMUSP	403.1987	-0.43126	0.04145	0.13933	B1glnp7
ENSGMUSP	15.1151	-0.00000	0.00000	0.00000	B1glnp8
ENSGMUSP	117.959	-0.00479	0.71021	0.9397	B1glnp9
ENSGMUSP	7915.867	-0.10794	0.82148	0.98512	B1glnp10
ENSGMUSP	949.107	-0.2844	0.06129	0.13419	B1glnp11
ENSGMUSP	16.021	-0.00000	0.00000	0.00000	B1glnp12
ENSGMUSP	26.6196	-0.14079	0.68591	0.93281	B1glnp13
ENSGMUSP	22.4903	-0.20427	0.60658	0.97154	B1glnp14
ENSGMUSP	26.4943	-0.2489	0.51052	0.87078	B1glnp15
ENSGMUSP	9.8521	-0.00000	0.00000	0.00000	B1glnp16
ENSGMUSP	42.0869	-0.3781	0.19507	0.34043	B1glnp17
ENSGMUSP	144.138	-0.74447	0.00000	0.07338	B1glnp18
ENSGMUSP	224.5581	0.04922	0.13335	0.57769	B1glnp19
ENSGMUSP	10.4561	-0.00000	0.00000	0.00000	B1glnp20
ENSGMUSP	40.2164	-0.40082	0.35398	0.94789	B1glnp21
ENSGMUSP	42.218				

ENSMUG 6602.419	0.014286	0.904759	0.910989	Bar1
ENSMUG 15515.36	0.148429	0.892575	0.905988	Au2
ENSMUG 4621.874	0.302044	0.077847	0.77811	Bar1
ENSMUG 1804.632	0.000000	0.000000	0.000000	Bar1
ENSMUG 1670.166	0.007615	0.746215	0.746215	Bar1
ENSMUG 46.68283	0.258171	0.674725	0.92139	B13004C1419R18c
ENSMUG 91.040471	0.204223	0.238375	0.912757	B13004C15424R18c
ENSMUG 11.119007	0.000000	0.000000	0.000000	Bar1
ENSMUG 61.2852	0.593164	0.000000	0.864412	B230206C047R18c
ENSMUG 61.2852	0.88951	0.503426	0.927698	B230206C020R18c
ENSMUG 10.28926	0.132382	0.824294	N/A	B230206C107R18c
ENSMUG 14.148434	0.000000	0.000000	0.000000	Bar1
ENSMUG 23.0774	0.003044	0.97816	0.99646	B230219022R18c
ENSMUG 82.44791	0.636311	0.263918	0.98184	B230307C027R18c
ENSMUG 80.48764	0.44073	0.909333	0.796313	B230307C103R18c
ENSMUG 14.148434	0.000000	0.000000	0.000000	Bar1
ENSMUG 591.2722	0.19907	0.169314	0.840068	B230354C017R18c
ENSMUG 4463.729	0.09244	0.502422	0.927825	B230354C017R18c
ENSMUG 1385.83	0.134986	0.468219	0.912928	B3g12t
ENSMUG 1496.77	0.000000	0.000000	0.000000	Bar1
ENSMUG 1496.77	0.035373	0.852221	0.985558	B3g12t
ENSMUG 1238.92	0.131354	0.09895	0.7091	B3g12t
ENSMUG 145.75424	0.200556	0.589494	0.944975	B3g12t
ENSMUG 145.75424	0.200556	0.589494	0.944975	B3g12t
ENSMUG 430.5003	0.063038	0.730307	0.770268	B3g12t
ENSMUG 119.0651	0.095287	0.398519	0.912928	B3g12t
ENSMUG 109.093	0.017757	0.893093	0.995058	B3g12t
ENSMUG 176.6312	0.000000	0.000000	0.000000	Bar1
ENSMUG 95.14003	0.101069	0.464712	0.994878	B3g12t
ENSMUG 42.27207	0.340173	0.927422	0.912757	B3g12t
ENSMUG 29.09023	0.161617	0.09373	0.795057	B3g12t
ENSMUG 76.6312	0.000000	0.000000	0.000000	Bar1
ENSMUG 34.55616	0.669893	0.269929	0.912757	B3g12t
ENSMUG 57.29609	0.144493	0.635644	0.952930	B3g12t
ENSMUG 42.78966	0.000000	0.000000	0.000000	Bar1
ENSMUG 160.757	0.000000	0.000000	0.000000	Bar1
ENSMUG 19.993851	0.002034	0.991994	0.91089	B3g12t
ENSMUG 13.15263	0.135209	0.797183	0.98178	B403021C026R18c
ENSMUG 35.84421	0.60386	0.200704	0.782639	B403021C035R18c
ENSMUG 429.984	0.182832	0.095753	0.844441	B43g11t
ENSMUG 18.181818	0.000000	0.000000	0.000000	Bar1
ENSMUG 27.16475	0.256077	0.70406	0.758658	B4g12t
ENSMUG 349.6524	0.098969	0.506	0.955533	B4g12t
ENSMUG 5637.777	0.197368	0.027659	0.97598	B4g12t
ENSMUG 13.15263	0.135209	0.797183	0.98178	B4g12t
ENSMUG 99.1285	0.175873	0.051079	0.870034	B4g12t
ENSMUG 184.681	0.248984	0.125201	0.81156	B4g12t
ENSMUG 429.984	0.182832	0.095753	0.844441	B4g12t
ENSMUG 28.29374	0.000000	0.000000	0.000000	Bar1
ENSMUG 550.285	0.092318	0.081734	0.953251	B603011X06R18c
ENSMUG 4.98309	0.978889	0.643134	N/A	B990502S03R18c
ENSMUG 12.03187	0.26431	0.914719	0.700664	Bac2
ENSMUG 1557.049	0.14275	0.191723	0.900698	Babm1
ENSMUG 1557.049	0.14275	0.191723	0.900698	Babm1
ENSMUG 4246.301	0.181711	0.200027	0.864412	Bac2
ENSMUG 231.3333	0.104127	0.61016	0.950971	Bac2c
ENSMUG 421.8758	0.565881	0.000000	0.912757	Bac1t
ENSMUG 19.993851	0.002034	0.991994	0.91089	Bac1t
ENSMUG 790.5515				

ENSMUSGCB230208H1	11.47238	0.207	0.77011	NA	ENSMUSGCB230208H1	10.28926	0.13382	0.82342	NA
ENSMUSGCB230206H1	204.4928	-0.20879	188.0886	62.087	ENSMUSGCB230216H1	175.1298	-0.4986	0.99595	0.620326
ENSMUSGCB230207H1	237.829	0.04195	0.801818	0.96216	ENSMUSGCB230217H1	214.8621	0.0009	0.91322	0.921916
ENSMUSGCB230208H1	76.176	-0.0591	0.78216	0.97316	ENSMUSGCB230218H1	128.737	-0.0001	0.91322	0.921916
ENSMUSGCB230207C2	132.072	0.12473	0.12473	0.20495	ENSMUSGCB230207C2	82.4791	0.26311	0.91322	0.886134
ENSMUSGCB230311H1	10.445	-0.02697	0.8007	0.9878	ENSMUSGCB230311H1	80.4764	-0.4073	0.96312	0.786133
ENSMUSGCB230310H1	17.0327	0.166428	0.70376	NA	ENSMUSGCB230311H1C	12.3049	-0.6563	0.2357	0.88718
ENSMUSGCB230305H1	73.37	0.315971	0.1717	0.69717	ENSMUSGCB230311H1C	191.272	-0.007	0.6187	0.90879
ENSMUSGCB230312H1	128.634	-0.01147	0.10147	0.152217	ENSMUSGCB230311H1C	134.524	-0.0093	0.2274	0.78235
ENSMUSGCB230311H1	736.49	-0.45884	0.00382	0.92454	ENSMUSGCB230311H1C	1365.83	0.134986	0.8621	0.929219
ENSMUSGCB230312H1	437.5117	-0.06262	0.56332	0.80079	ENSMUSGCB230311H1C	427.1132	0.131612	0.45873	0.932329
ENSMUSGCB230311H1	1403.98	-0.0001	0.0001	0.03768	ENSMUSGCB230311H1C	1238.73	0.0001	0.91322	0.921916
ENSMUSGCB230311H1	101.531	0.000449	0.00009	0.01915	ENSMUSGCB230311H1C	128.737	0.13113	0.8686	0.9071
ENSMUSGCB230311H1	140.1902	-0.82423	0.126564	0.53415	ENSMUSGCB230311H1C	145.742	0.120056	0.58594	0.944975
ENSMUSGCB230311H1	139.682	-0.31116	0.02132	0.144259	ENSMUSGCB230311H1C	148.295	0.159377	0.37097	0.899538
ENSMUSGCB230311H1	403.1987	-0.43126	0.0145	0.153933	ENSMUSGCB230311H1C	403.5053	0.06083	0.73037	0.967728
ENSMUSGCB230311H1	1211.13	-0.0001	0.0001	0.82345	ENSMUSGCB230311H1C	1211.13	-0.0001	0.91322	0.921916
ENSMUSGCB230311H1	117.959	-0.0447	0.71021	0.9397	ENSMUSGCB230311H1C	109.903	0.0017757	0.88331	0.990558
ENSMUSGCB230311H1	791.857	-0.010794	0.894128	0.984512	ENSMUSGCB230311H1C	751.1403	0.0299	0.773947	0.97478
ENSMUSGCB230311H1	91.947	-0.2244	0.00129	0.385174	ENSMUSGCB230311H1C	91.943	0.00995	0.94712	0.994978
ENSMUSGCB230311H1	1211.13	-0.0001	0.0001	0.82345	ENSMUSGCB230311H1C	1211.13	-0.0001	0.91322	0.921916
ENSMUSGCB230311H1	26.6196	-0.144109	0.053281	0.93281	ENSMUSGCB230311H1C	29.0903	0.016147	0.0937	0.75507
ENSMUSGCB230311H1	22.4491	-0.02407	0.605856	0.907154	ENSMUSGCB230311H1C	21.63286	-0.21369	0.9498	0.955433
ENSMUSGCB230311H1	26.3439	-0.489	0.51652	0.872788	ENSMUSGCB230311H1C	34.5616	0.66893	0.06789	0.9721
ENSMUSGCB230311H1	49.016	-0.0001	0.0001	0.159117	ENSMUSGCB230311H1C	49.016	-0.0001	0.91322	0.921916
ENSMUSGCB230311H1	42.09699	-0.781	0.957	0.643458	ENSMUSGCB230311H1C	42.79866	-0.3871	0.16745	0.99259
ENSMUSGCB230311H1	144.1388	-0.4447	0.03674	0.77033	ENSMUSGCB230311H1C	160.9651	-0.0519	0.93981	0.982077
ENSMUSGCB230311H1	224.5581	0.040221	0.53955	0.947768	ENSMUSGCB230311H1C	199.7871	-0.0024	0.93941	0.919808
ENSMUSGCB230311H1	224.5581	0.040221	0.53955	0.947768	ENSMUSGCB230311H1C	199.7871	-0.0024	0.93941	0.919808
ENSMUSGCB230311H1	40.2164	-0.4002	0.26308	0.57889	ENSMUSGCB230311H1C	35.8421	-0.60386	0.20734	0.782639



ENSMUSGC 300.2851 -0.44599 0.005556 0.111119 Bche  
ENSMUSGC 2450.17 0.085334 0.353929 0.788009 Bcdhda  
ENSMUSGC 612.4107 0.078741 0.187841 0.524807 Bcdhdb  
ENSMUSGC 1182.619 0.165589 0.106589 0.494174 Bcdk  
ENSMUSGC 491.4792 -0.01192 0.915919 0.988634 Bcdl  
ENSMUSGC 1714.595 -0.031791 0.919577 0.990247 Bcdlla  
ENSMUSGC 1670.948 0.01127 0.109598 0.711381 Bcdllb  
ENSMUSGC 1271.661 0.141207 0.282729 0.73186 Bcdl  
ENSMUSGC 15.37571 0.077556 0.867558 Nla Bcdz1b  
ENSMUSGC 3147.91 0.151719 0.13219 0.544244 Bcdz21  
ENSMUSGC 184.6315 0.70139 0.06027 0.464261 Bcdz31  
ENSMUSGC 86.45892 -0.13073 0.544013 0.884712 Bcdz12  
ENSMUSGC 1895.194 0.064878 0.49032 0.859319 Bcdz13  
ENSMUSGC 12.34819 0.192211 0.646173 Nla Bcdz15  
ENSMUSGC 8378.524 0.098421 0.2108 0.653564 Bcdz2  
ENSMUSGC 16.27096 0.00894 0.309647 0.610271 Bcdz1  
ENSMUSGC 951.6595 0.163667 0.190054 0.629259 Bcdz6  
ENSMUSGC 103.8737 -0.18504 0.435209 0.829939 Bcdz6  
ENSMUSGC 2386.307 0.089175 0.406964 0.817163 Bcdz7a  
ENSMUSGC 1280.233 0.013973 0.029842 0.988084 Bcdz1  
ENSMUSGC 1164.228 0.069 0.464379 0.843364 Bcdz  
ENSMUSGC 1455.137 0.045324 0.65347 0.922819 Bcdz  
ENSMUSGC 2073.034 0.138305 0.157763 0.589297 Bcdz9  
ENSMUSGC 2267.014 0.07645 0.398027 0.914172 Bcdz1f  
ENSMUSGC 171.097 -0.13739 0.414272 0.819998 Bcdz1f  
ENSMUSGC 738.7736 0.05594 0.674666 0.929638 Bcdz  
ENSMUSGC 962.7409 0.172055 0.085252 0.450128 Bcdz  
ENSMUSGC 596.9697 0.00502 0.963357 0.994911 Bcdz  
ENSMUSGC 6483.715 0.03301 0.716837 0.941697 Bcdz1e  
ENSMUSGC 596.404 0.058834 0.986512 0.989716 Bcdz1  
ENSMUSGC 234.334 0.071847 0.463661 0.848212 Bcdz1e  
ENSMUSGC 833.6288 0.025234 0.923407 0.931929 Bcdz1e  
ENSMUSGC 1328.555 0.31581 0.016188 0.989582 Bcdz1e  
ENSMUSGC 607.2912 -0.5613 0.007602 0.27082 Bcdz1e  
ENSMUSGC 845.8237 0.194794 0.076152 0.42702 Bcdz1  
ENSMUSGC 647.9405 0.281045 0.027822 0.253388 Bcdz1  
ENSMUSGC 3803.14 0.00894 0.309647 0.610271 Bcdz1  
ENSMUSGC 1006.813 0.155396 0.060979 0.407145 Began  
ENSMUSGC 294.0992 -0.03803 0.766177 0.954513 Bemd3  
ENSMUSGC 199.0277 -0.0552 0.732314 0.944956 Bemd3  
ENSMUSGC 233.8079 -0.17137 0.306436 0.754149 Bemd5  
ENSMUSGC 5323.102 0.091146 0.284869 0.918624 Bemd6  
ENSMUSGC 95.18193 0.10286 0.673696 0.954052 Bemd7  
ENSMUSGC 31.52565 -0.07399 0.828046 0.698866 Bemt1  
ENSMUSGC 629.8123 0.069668 0.627614 0.912961 Bemt1  
ENSMUSGC 511.6652 0.051484 0.016817 0.461697 Bemt1  
ENSMUSGC 662.1128 -0.10851 0.505837 0.869636 Bemt1  
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ENSMUSUG 731.7152 0.172286 0.117719 0.8015 Cap1  
ENSMUSUG 6248.976 0.000324 0.04045 0.234041 Camsp3  
ENSMUSUG 6673.776 0.074656 0.731861 0.917127 Capb2  
ENSMUSUG 3420.745 -0.24179 0.049895 0.914042 Car10  
ENSMUSUG 8300.774 -0.11121 0.160752 0.506268 Car1  
ENSMUSUG 486.6326 0.02667 0.05455 0.215304 Capn5  
ENSMUSUG 121.763 0.787558 0.160204 0.589893 Car14  
ENSMUSUG 570.5012 -0.48692 0.000337 0.016819 Car14  
ENSMUSUG 70390.903 0.01181 0.962038 0.981436 Car15  
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ENSMUSUG 21.3548 -0.77975 0.027813 0.414939 Car3  
ENSMUSUG 1662.935 -0.06672 0.633109 0.914073 Car4  
ENSMUSUG 17.0948 -0.2234 0.341754 Na Car5a  
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ENSMUSUG 575.3565 0.098302 0.052565 0.886141 Car1  
ENSMUSUG 1950.493 0.010277 0.934821 0.917127 Car8  
ENSMUSUG 26.39125 -0.34949 0.444772 0.833239 Car9  
ENSMUSUG 197.6762 0.930097 0.023523 0.234055 Car10  
ENSMUSUG 13.12145 0.02891 0.05455 0.215304 Capn5  
ENSMUSUG 37.58294 -0.5083 0.098581 0.480543 Car14  
ENSMUSUG 285.4312 -0.33485 0.012917 0.164193 Car19  
ENSMUSUG 78.69399 -0.08654 0.693885 0.934202 Car16  
ENSMUSUG 105.0905 -0.02907 0.940498 0.98082 Car19  
ENSMUSUG 359.627 -0.0171 0.889135 0.986933 Car1  
ENSMUSUG 4471.925 -0.00296 0.976699 0.991427 Carhp1  
ENSMUSUG 25.17354 -0.05372 0.887045 0.983236 Car1  
ENSMUSUG 2533.206 0.000324 0.04045 0.234041 Camsp3  
ENSMUSUG 1796.955 0.145488 0.188542 0.627572 Cam1  
ENSMUSUG 3657.139 0.088371 0.343585 0.779153 Cam12  
ENSMUSUG 1608.104 0.49072 0.003034 0.021434 Cam13  
ENSMUSUG 257.7587 0.122624 0.19847 0.81268 Cam11  
ENSMUSUG 463.6033 0.28991 0.05455 0.215304 Capn5  
ENSMUSUG 1109.364 0.121184 0.251926 0.701908 Car1  
ENSMUSUG 383.4367 0.145082 0.261056 0.710889 Car12  
ENSMUSUG 282.2909 0.5223 0.005537 0.09448 Car1  
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ENSMUSUG 3817.146 -0.07984 0.146154 0.20804 Caud  
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ENSMUSUG 46.20365 -0.24653 0.041689 0.832577 Cap1  
ENSMUSUG 22.02305 -0.01871 0.963658 0.994922 Cap12  
ENSMUSUG 321.3919 -0.16139 0.207104 0.645903 Cap2  
ENSMUSUG 361.9688 0.018689 0.876527 0.93413 Cap3  
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ENSMUSUG 183.3604 0.021609 0.89021 0.983867 Cap1  
ENSMUSUG 120.4299 -0.04836 0.805816 0.962616 Cap7  
ENSMUSUG 173.4956 -0.07334 0.027816 0.92974 Car1  
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ENSMUSUG 147.5151 -0.00335 0.986217 0.998326 Catp2  
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ENSMUSUG 133.427 0.49095 0.78177 0.943429 Capb2  
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ENSMUSUG 1004.25 0.118923 0.289277 0.739725 Chf2a2  
ENSMUSUG 1300.786 0.363355 0.006467 0.046244 Chf2a3  
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ENSMUSUG 516.5752 -0.0054 0.9637 0.999922 Chfb  
ENSMUSUG 313.1533 -0.15909 0.259955 0.709951 Cam4  
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ENSMUSUG 931.7955 -0.24655 0.133168 0.545722 Chfb2  
ENSMUSUG 17.14338 0.255674 0.632237 Na Chfb3  
ENSMUSUG 381.4232 -0.19628 0.226768 0.67384 Chfb4  
ENSMUSUG 1074.166 0.08693 0.489863 0.859092 Ch1  
ENSMUSUG 70.54433 0.136682 0.075182 0.890037 Chv1  
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ENSMUSUG 353.8491 0.082546 0.50778 0.86795 Chv4  
ENSMUSUG 3517.124 0.46583 0.006286 0.99677 Chv4  
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ENSMUSUG 1490.41 0.018461 0.863302 0.975055 Chv4  
ENSMUSUG 1311.216 -0.14422 0.219619 0.664984 Chv4  
ENSMUSUG 6703.149 0.061067 0.515185 0.886141 Chv5

ENSMUSUG 90250.76 -0.05439 0.609227 0.95038 Cam1  
ENSMUSUG 16638.84 -0.24375 0.215302 0.865167 Cam2  
ENSMUSUG 47582.84 -0.14649 0.01128 0.81516 Cam2  
ENSMUSUG 35.14562 -0.04862 0.93091 0.91089 Cam4  
ENSMUSUG 4930.57 0.23054 0.037652 0.6763 Cam1  
ENSMUSUG 16959.03 0.118889 0.346922 0.919879 Cap  
ENSMUSUG 43.1162 0.110564 0.73717 0.967709 Chv3  
ENSMUSUG 736.0791 -0.3263 0.277891 0.886507 Cal4  
ENSMUSUG 5502.845 0.041064 0.72781 0.917462 Caud  
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ENSMUSUG 18847.15 0.117775 0.360029 0.914633 Camk2a  
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ENSMUSUG 4563.059 -0.10461 0.234249 0.950527 Camk2b2  
ENSMUSUG 589.891 -0.21044 0.123503 0.814941 Camk3  
ENSMUSUG 3225.678 -0.00996 0.93382 0.93898 Camk3  
ENSMUSUG 8496.687 -0.02682 0.79886 0.976106 Camk2  
ENSMUSUG 179.5983 -0.20799 0.556663 0.883082 Camkmt  
ENSMUSUG 12603.81 -0.00075 0.994703 0.998813 Camkcv  
ENSMUSUG 702.7892 0.227433 0.018617 0.955558 Camk1  
ENSMUSUG 41.29437 0.121216 0.907123 0.919642 Camk  
ENSMUSUG 294.246 0.02106 0.853272 0.985958 Camsp1  
ENSMUSUG 3815.552 0.110551 0.073197 0.989838 Camsp2  
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ENSMUSUG 12335.94 0.097149 0.315005 0.951107 Camt2  
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ENSMUSUG 159.8904 -0.24192 0.176976 0.987698 Cam12  
ENSMUSUG 1771.076 0.23831 0.163541 0.838281 Cam1  
ENSMUSUG 14945.28 0.109554 0.487143 0.92541 Camx  
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ENSMUSUG 5379.415 -0.0514 0.263211 0.934744 Capa2a  
ENSMUSUG 5684.935 -0.12317 0.123569 0.900077 Capab  
ENSMUSUG 1475.313 0.082513 0.943761 0.938063 Cam1  
ENSMUSUG 5816.931 -0.07518 0.94117 0.91869 Car11  
ENSMUSUG 518.372 -0.1473 0.306402 0.89838 Car12  
ENSMUSUG 97.38063 -0.09346 0.676878 0.957106 Car13  
ENSMUSUG 681.1482 0.32543 0.037463 0.673565 Car14  
ENSMUSUG 72.98111 0.3833 0.29642 0.80969 Car15  
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ENSMUSUG 45.7315 0.350388 0.273733 0.872173 Card12  
ENSMUSUG 280.5943 -0.08614 0.829228 0.92446 Card19  
ENSMUSUG 79.3149 0.210278 0.049429 0.917257 Card8  
ENSMUSUG 104.1587 0.267406 0.341127 0.950409 Card9  
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ENSMUSUG 336.816 -0.18439 0.130322 0.821488 Carhp1  
ENSMUSUG 201.5578 0.477564 0.956558 0.99943 Car1  
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ENSMUSUG 1284.704 0.145729 0.147002 0.917257 Cam13  
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ENSMUSG 29194.38 0.209194 0.011206 0.152581 Cbw6  
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ENSMUSG 67.55411 0.707074 0.798753 0.966362 Ccd1c68  
ENSMUSG 26.57946 0.124113 0.596803 0.903152 Ccd1c70  
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ENSMUSG 348.7355 0.026797 0.827829 0.966532 Ccd1c75  
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ENSMUSG 302.062 -0.10235 3.55E-06 0.000492 Ccd1c87  
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ENSMUSG 98.30035 0.38112 0.082327 0.442642 Ccd1c92  
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ENSMUSG 919.7235 0.12315 0.33923 0.788371 Ccd1c95  
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ENSMUSG 499.5409 -0.23359 0.240715 0.688247 Cn93  
ENSMUSG 2918.518 -0.24327 0.090923 0.463236 Cn992  
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ENSMUSG 1507.741 -0.1027 0.275229 0.725669 Cn91  
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ENSMUSG 194.9762 -0.04026 0.04026 0.04026 Cn992  
ENSMUSG 296.0637 -0.05523 0.171799 0.941697 Cn14b  
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ENSMUSG 159.1718 0.050115 0.865929 Cn25  
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ENSMUSG 522.3302 -0.0246 0.849999 0.972734 Cn26  
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ENSMUSG 3653.743 0.046207 0.616883 0.94284 Cn371  
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ENSMUSG 14746.18 0.170842 0.0235 0.23456 Cn42bap  
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ENSMUSG 215.8356 -0.15102 0.370878 0.788702 Cn42ap2  
ENSMUSG 216.7843 -0.40267 0.06019 0.132086 Cn42ap3  
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ENSMUSG 3022.368 0.123269 0.14167 0.556858 Cn42ap1  
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ENSMUSG 8459.848 -0.07581 0.051293 0.912571 Cn1  
ENSMUSG 1130.084 0.02004 0.91487 0.992407 Cn101  
ENSMUSG 51.54729 0.507531 0.06024 0.714317 Cn109  
ENSMUSG 155.1546 0.707234 0.00979 0.404548 Cn1  
ENSMUSG 1198.355 0.137593 0.422183 0.917257 Cn151  
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ENSMUSG 650.5806 -0.18826 0.054505 0.57825 Cn244  
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ENSMUSG 2778.929 0.189543 0.13116 0.028489 Cn34  
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ENSMUSG 15.57794 0.854123 0.973491 0.9419 Cn1  
ENSMUSG 267.524 0.398523 0.117634 0.813384 Cn248  
ENSMUSG 638.345



ENSMUSG	271.692	0.08585	0.43651	0.82937	Cdk1b
ENSMUSG	280.573	0.08814	0.03159	0.76348	Cdk1b
ENSMUSG	534.9482	0.007007	0.96661	0.99574	Cdk2
ENSMUSG	1393.418	0.07034	0.402574	0.95505	Cdk13
ENSMUSG	5780.123	0.11854	0.00000	0.93413	Cdk13
ENSMUSG	13.49778	-0.00045	0.993196	Na	Cdk15
ENSMUSG	24199.06	0.162034	0.03502	0.79018	Cdk16
ENSMUSG	2414.991	0.07186	0.46643	0.88449	Cdk17
ENSMUSG	779.0262	0.11464	0.00000	0.9127	Cdk18
ENSMUSG	386.52	0.06058	0.48763	0.88824	Cdk19
ENSMUSG	136.6359	-0.13628	0.50406	0.66883	Cdk2
ENSMUSG	270.4517	0.18264	0.26941	0.91441	Cdk20
ENSMUSG	177.4148	0.07568	0.40000	0.8127	Cdk21
ENSMUSG	30.35773	0.13832	0.34791	0.79143	Cdk23p17
ENSMUSG	605.3322	-0.17914	0.21643	0.66142	Cdk2p21
ENSMUSG	51.07271	0.19029	0.52901	0.87862	Cdk3
ENSMUSG	259.466	-0.08009	0.40000	0.76427	Cdk3
ENSMUSG	1954.266	0.05894	0.602058	0.98947	Cdk5
ENSMUSG	565.866	-0.03272	0.730713	0.94966	Cdk6
ENSMUSG	124.9634	0.11922	0.160825	0.900528	Cdk6r2
ENSMUSG	191.5689	0.26328	0.124314	0.93171	Cdk6r3
ENSMUSG	1180.194	-0.04126	0.78811	0.92003	Cdk6r3
ENSMUSG	122.8702	0.07151	0.452864	0.83327	Cdk6p3
ENSMUSG	143.8747	-0.02426	0.881356	0.98178	Cdk6
ENSMUSG	132.5339	-0.07081	0.64134	0.90949	Cdk7
ENSMUSG	271.8844	0.07568	0.40000	0.8127	Cdk7
ENSMUSG	239.634	0.24450	0.13046	0.94177	Cdk8
ENSMUSG	259.478	0.07407	0.72362	0.93478	Cdk11
ENSMUSG	175.989	-0.16265	0.483103	0.856216	Cdk11
ENSMUSG	486.5811	0.07568	0.40000	0.8127	Cdk11
ENSMUSG	413.9491	-0.18354	0.178827	0.616298	Cdk11
ENSMUSG	377.4057	0.14072	0.243628	0.806897	Cdk14
ENSMUSG	2442.347	0.00000	0.965071	0.99903	Cdk15
ENSMUSG	596.6308	-0.04716	0.74412	0.948697	Cdk15
ENSMUSG	178.845	-0.09464	0.78811	0.72806	Cdk16
ENSMUSG	302.5252	-0.09151	0.534788	0.92575	Cdk16r1
ENSMUSG	364.646	-0.12114	0.379471	0.87517	Cdk16r2
ENSMUSG	784.294	-0.17032	0.149628	0.73073	Cdk20p21
ENSMUSG	49.5918	0.17568	0.28075	0.8127	Cdk21
ENSMUSG	280.3766	-0.04818	0.742289	0.94506	Cdk21
ENSMUSG	65.05878	-0.06869	0.65258	0.92486	Cdk22r2
ENSMUSG	55.01681	-0.04224	0.251091	0.700723	Cdn
ENSMUSG	76.8321	0.04362	0.78811	0.92003	Cdk23
ENSMUSG	536.143	-0.24256	0.00000	0.7345	Cdon
ENSMUSG	302.5155	0.00216	0.98285	0.99199	Cdp10
ENSMUSG	1029.024	-0.10286	0.350054	0.781943	Cdr1
ENSMUSG	123.2296	0.06869	0.467796	0.94593	Cdr1
ENSMUSG	800.0161	-0.04126	0.78811	0.92003	Cdr1
ENSMUSG	3480.769	-0.20753	0.093396	0.44093	Cdr1
ENSMUSG	171.6163	-0.11025	0.405786	0.81652	Cdr2
ENSMUSG	37.28932	-0.07247	0.379522	0.80157	Cdr2
ENSMUSG	55.0836	-0.07081	0.64134	0.90949	Cdr2
ENSMUSG	2731.673	-0.04743	0.88634	0.98393	Cdr2
ENSMUSG	279.8211	0.067816	0.61384	0.9923	Cdr3
ENSMUSG	67.84651	0.58664	0.61384	0.172602	Cdr3
ENSMUSG	49.9958	0.07568	0.40000	0.8127	Cdr3
ENSMUSG	617.7419	0.416133	0.0051	0.04284	CebpA
ENSMUSG	203.1253	-0.21119	0.37889	0.71422	CebpB
ENSMUSG	175.8632	-0.1864	0.55		

ENSMN8478	24.82772	-0.71672	0.07376	0.76329	Cdk2ap1rt
ENSMN8478	28.82816	-0.01913	0.886613	0.905058	Cdk2ap1rt
ENSMN8478	41.51064	-0.12095	0.74888	0.96984	Cdk3
ENSMN8478	142.0209	-0.88717	0.44849	0.918876	Cdk5
ENSMN8478	158.0595	-0.01107	0.9588	0.98848	Cdk5
ENSMN8478	531.2721	0.051817	0.616357	0.953903	Cdk1cr1
ENSMN8478	19029.254	0.039542	0.13636	0.96497	Cdk3cr1
ENSMN8478	165.0585	0.019676	0.380049	0.953251	Cdk5cap1
ENSMN8478	165.0585	0.019676	0.380049	0.953251	Cdk5cap1
ENSMN8478	150.1594	-0.09842	0.380049	0.912757	Cdk3cap1
ENSMN8478	141.1649	0.086135	0.335296	0.907907	Cdk3
ENSMN8478	291.1225	-0.13103	0.984049	0.96963	Cdk3
ENSMN8478	703.6322	-0.05855	0.753662	0.966887	Cdk3
ENSMN8478	196.5152	-0.05855	0.753662	0.966887	Cdk3
ENSMN8478	231.2559	-0.12069	0.46464	0.93329	Cdk1al1
ENSMN8478	163.7866	-0.06303	0.748709	0.96984	Cdk3cr1
ENSMN8478	184.4571	-0.06303	0.748709	0.96984	Cdk3cr1
ENSMN8478	384.8847	-0.11727	0.403251	0.93329	Cdk3cr1
ENSMN8478	338.9401	-0.101032	0.47521	0.93329	Cdk3cr1
ENSMN8478	217.004	-0.08201	0.528475	0.934795	Cdk5cr5
ENSMN8478	467.8674	-0.52407	0.000571	0.972448	Cdk1cr1a
ENSMN8478	297.2564	-0.051817	0.616357	0.953903	Cdk1cr1
ENSMN8478	257.6533	0.14223	0.400481	0.912757	Cdk3cr1
ENSMN8478	356.7301	0.097072	0.54183	0.937841	Cdk2ap1rt
ENSMN8478	675.3028	-0.01622	0.905059	0.905058	Cdk2ap1rt
ENSMN8478	145.0088	-0.01622	0.905059	0.905058	Cdk2ap1rt
ENSMN8478	243.2693	-0.2042	0.28081	0.868507	Cdk2ap1rt
ENSMN8478	254.9521	-0.08468	0.614008	0.951177	Cdk2nd2
ENSMN8478	54.9067	-0.04637	0.86739	0.987764	Cdk3
ENSMN8478	780.7215	-0.04637	0.86739	0.987764	Cdk3
ENSMN8478	133.2194	-0.13772	0.32322	0.940023	Cdk3cr1
ENSMN8478	257.7682	-0.17472	0.221653	0.886104	Cdk1cr1
ENSMN8478	199.149	0.267993	0.925654	0.73362	Cdp10s
ENSMN8478	1073.364	-0.04345	0.78192	0.950126	Cdk3
ENSMN8478	721.1615	-0.07707	0.616357	0.953903	Cdk3
ENSMN8478	347.9752	-0.06892	0.608059	0.976206	C1cr1
ENSMN8478	17138.81	-0.15629	0.338676	0.940856	Cdk3
ENSMN8478	34.6054	-0.23779	0.493852	0.937372	Cdk3
ENSMN8478	70.5925	-0.23779	0.493852	0.937372	Cdk3
ENSMN8478	240.5752	-0.0999	0.487053	0.92329	Cdv3cr1
ENSMN8478	252.5282	-0.03479	0.840263	0.982367	Cdy1
ENSMN8478	55.05475	0.302166	0.11752	0.888062	Cdy2
ENSMN8478	155.0877	0.302166	0.11752	0.888062	Cdy2
ENSMN8478	516.3705	0.240861	0.14715	0.817703	Cepb3
ENSMN8478	193.1959	-0.08951	0.62823	0.958878	Cepb3
ENSMN8478	181.001	0.011165	0.962135	0.959237	Cepb3
ENSMN8478	1221.779	0.018189	0.975372	0.989644	Cepb3
ENSMN8478	76.0104	-0.07382	0.84208	0.968507	Cepb3
ENSMN8478	406.0992	-0.23981	0.147542	0.836241	Cepb20s
ENSMN8478	105.4623	-0.03514	0.87581	0.918122	Cer2
ENSMN8478	104.6679	-0.23343	0.23668	0.980209	Cel1
ENSMN8478	406.468	-0.10471	0.84208	0.968507	Cel1
ENSMN8478	737.616	-0.18866	0.267895	0.886134	Cel12
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ENSMN8478	48.8434	-0.168018	0.162696	0.87772	

ENSMUSGCDk15	2442.347	0.004006	0.0716
ENSMUSGCDk16	596.6308	0.04716	0.07
ENSMUSGCDk1b1	1176.845	0.106467	0.07
ENSMUSGCDk1c	302.5252	0.015915	0.533
ENSMUSGCDk1c2	294.6544	0.015915	0.37
ENSMUSGCDk2a1	784.2941	0.147032	0.14
ENSMUSGCDk2b	40.5918	0.208706	0.56
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ENSMUSGCDk2d	645.081	0.015915	0.1
ENSMUSGCDk5	55.01681	0.29424	0.25
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ENSMUSGCDk9	536.1413	0.42526	0.0000
ENSMUSGCDp1	340.5117	0.008865	0.0000
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ENSMUSGCDr2	1237.296	0.088665	0.404
ENSMUSGCDr20	100.007	0.04218	0.70
ENSMUSGCDs1	2480.7205	0.008865	0.0000
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ENSMUSGCDs3	37.28933	0.27227	0.37
ENSMUSGCDt1	55.08836	0.37565	0.01
ENSMUSGCDv3	273.673	0.01493	0.83
ENSMUSGCDv4	292.84	0.01493	0.61
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ENSMUSGCEaam1	160.9958	0.00214	0.99
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ENSMUSGCEb3	175.8623	0.3864	0.05
ENSMUSGCEb4	1361.996	0.063914	0.01
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ENSMUSGCEb2p	407.201	0.008865	0.0000
ENSMUSGCEr2	260.004	0.2217	0.18
ENSMUSGCEa1	124.7841	0.13461	0.43
ENSMUSGCEa11	4278.427	0.00673	0.93
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ENSMUSGCEa13	493.31	0.008865	0.0000
ENSMUSGCEa4	18445.01	0.162107	0.02
ENSMUSGCEa5	8917.826	0.256635	0.02
ENSMUSGCEa6	502.3164	0.22563	0.06
ENSMUSGCEa1r	340.5881	0.008865	0.0000
ENSMUSGCEa1r1	689.6126	0.12085	0.43
ENSMUSGCEa2	8184.915	0.28547	0.02
ENSMUSGCEa3	3269.322	0.04522	0.70
ENSMUSGCEa3p	771.823	0.008865	0.29
ENSMUSGCEa3p2	508.1397	0.20516	0.20
ENSMUSGCEa3p4	340.5539	0.10406	0.74
ENSMUSGCEa3p1	6125.12	0.04126	0.43
ENSMUSGCEa3p2a	80.8841	0.70434	0.72
ENSMUSGCEa3p2b	174.878	0.008865	0.0000
ENSMUSGCEa3p2c	447.9202	0.121847	0.28
ENSMUSGCEa3p2e	60.03787	0.3254	0.24
ENSMUSGCEa3p2f	109.0788	0.7388	0.74
ENSMUSGCEa3p2g	14.1367	0.008865	0.60
ENSMUSGCEa3p2i	20.21363	0.1785	0.05
ENSMUSGCEa3p2j	109.8522	0.19103	0.32
ENSMUSGCEa3p2k	340.5539	0.04522	0.70
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ENSMUSGCEa3p2m	19.50074	0.09885	0.61
ENSMUSGCEa3p2n	30.95619	0.1867	0.59
ENSMUSGCEa3p2o	110.3093	0.09447	0.67
ENSMUSGCEa3p2p	47.4057	0.16138	0.71
ENSMUSGCEa3p2q	181.701	0.008865	0.0000
ENSMUSGCEa3p2r	15.8585	0.202975	0.51
ENSMUSGCEa3p2s	405.0179	0.045208	0.99
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ENSMUSGCEa3p2v	54.65292	0.25386	0.92
ENSMUSGCEa3p2w	486.4657	0.080146	0.46
ENSMUSGCEa3p2x	1626.418	0.124467	0.67
ENSMUSGCEa3p2y	461.613	0.008865	0.0000
ENSMUSGCEa3p2z	162.919	0.094575	0.29
ENSMUSGCEa3p2z1	261.8692	0.068368	0.63
ENSMUSGCEa3p2z2	469.2317	0.0008	0.99
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ENSMUSGCEa3p2z4	254.378	0.008865	0.0000
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ENSMUSGCEa3p2z6	155.5141	0.297325	0.00
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0.9590303 USNMUSG Ccnk1	2170.44	-0.06921	0.528475	0.973445
0.948497 USNMUSG Ccnk1a	467.8581	-0.02047	0.000871	0.974748
0.788086 USNMUSG Ccnk1b	1092.264	0.15556	0.04801	0.864412
0.880725 USNMUSG Ccnk1c	297.634	0.12423	0.04003	0.917257
0.788086 USNMUSG Ccnk1d	1092.264	0.15556	0.04801	0.864412
0.731611 USNMUSG Ccnk2	675.3208	-0.01622	0.00979	0.990558
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0.780478 USNMUSG Ccnk2d	243.2691	-0.0242	0.28881	0.885074
0.3679 USNMUSG Ccnk3	790.7215	0.00637	0.86739	0.931064
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0.751232 USNMUSG Ccnk8	49.5925	-0.39797	0.17021	0.871361
0.983139 USNMUSG Ccnk9	240.752	-0.0956	0.47851	0.938229
0.712602 USNMUSG Ccnk10	55.0575	-0.32166	0.2152	0.886292
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0.429884 USNMUSG Ccnk12	516.7075	0.04874	0.11475	0.811703
0.36102 USNMUSG Ccnk13	181.1301	0.01185	0.96123	0.959197
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0.945956 USNMUSG Ccnk37	511.9472	-0.21384	0.10496	0.940463
0.945956 USNMUSG Ccnk38	511.9472	-0.21384	0.10496	0.940463
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ENSMUSGC 796.8882 -0.13874 0.148403 0.571393 Chap20  
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ENSMUSG12	722.7597	-0.15519	0.25143	0.659961	Cna3
ENSMUSG12	970.3781	-0.07206	0.849329	0.927638	Cnapin1
ENSMUSG12	261.6566	-0.15519	0.25143	0.659961	Cna3
ENSMUSG12	841.9794	0.145211	0.11856	0.623181	Cna1
ENSMUSG12	854.6588	0.051072	0.064572	0.905556	Cna2
ENSMUSG12	842.5481	-0.04908	0.649674	0.920645	Cfabr1
ENSMUSG12	16.76052	0.145211	0.11856	0.623181	Cna1
ENSMUSG12	926.038	0.171031	0.13377	0.314810	Cna1
ENSMUSG12	85.9235	-0.23446	0.248287	0.73724	Cna2
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ENSMUSG12	1414.319	0.051072	0.064572	0.905556	Cna2
ENSMUSG12	84.97961	-0.25930	0.205089	0.65084	Ccp1
ENSMUSG12	45.56968	-0.02902	0.921811	0.991204	Cmap1b1
ENSMUSG12	14.84556	-0.12645	0.970522	NA	Cmap1d
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ENSMUSG12	11.7068	-0.15503	0.788183	NA	Cmap1c2
ENSMUSG12	15.592	-0.02653	0.649674	0.914534	Cmp1
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ENSMUSG12	130.074	-0.33166	0.02922	0.638887	Cit1
ENSMUSG12	190.713	0.027435	0.051072	0.064572	Cit2
ENSMUSG12	946.078	0.065159	0.007971	0.121438	Ckl137956
ENSMUSG12	42.34878	-0.08309	0.126723	0.532401	Ckap2
ENSMUSG12	54.4984	-0.1387	0.226257	0.67204	Ckap2
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ENSMUSG12	8679.452	0.16085	0.12377	0.3537	Ckap3
ENSMUSG12	63859.18	0.03711	0.06599	0.934202	Ck1
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ENSMUSG12	378.526	-0.03919	0.634024	0.914073	Cml1
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ENSMUSG12	22.51579	-0.19301	0.668481	0.927864	Cc2
ENSMUSG12	3006.529	0.114918	0.210158	0.641362	Clsap1
ENSMUSG12	923.881	-0.07688	0.634498	0.793976	Clsap2
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ENSMUSG12	19.3782	-0.10033	0.562326	0.888997	Ccl1
ENSMUSG12	262.0	-0.176226	0.101190	0.502085	Ccln2
ENSMUSG12	771.304	-0.22972	0.093697	0.47375	Ccln3
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ENSMUSG1					

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ENSMUSG	7386195	0.46432	0.504736	Nia	Cira
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ENSMUSG	45.94064	0.457348	0.165288	0.838743	Cimap1b
ENSMUSG	41.08001	0.003128	0.951833	0.994788	Cimap1d
ENSMUSG	14.41689	0.00000	0.00000	0.923329	Cimap2
ENSMUSG	579191	0.327847	0.00000	0.00000	Cimap2b
ENSMUSG	14.77069	0.829051	0.150045	0.800008	Cim2c
ENSMUSG	1256.609	0.001257	0.271686	0.888062	Cim2d
ENSMUSG	87.79238	0.00000	0.00000	0.99306	Cip2a
ENSMUSG	282.902	0.00000	0.00000	0.00000	Cip2b
ENSMUSG	399.0708	0.057063	0.195996	0.968676	Cip1
ENSMUSG	1442.278	0.12925	0.335965	0.993173	Cirbp
ENSMUSG	1831	0.00000	0.466345	0.923329	Citb
ENSMUSG	158.1677	0.00000	0.00000	0.00000	Citc
ENSMUSG	565.7674	0.11745	0.448126	0.922022	Cid3d
ENSMUSG	141.3368	0.00000	0.334073	0.909077	Cish
ENSMUSG	5192.742	0.128206	0.242908	0.875166	Cid4
ENSMUSG	158.6965	0.00000	0.00000	0.00000	Cid5
ENSMUSG	480.6729	0.286764	0.133809	0.829192	Cited2
ENSMUSG	132.2501	0.00056	0.998315	0.993323	Cited4
ENSMUSG	1476.705	0.24782	0.355156	0.912411	Cit1
ENSMUSG	158.273	0.00000	0.00000	0.00000	Cit2
ENSMUSG	48.8509	0.01871	0.951958	0.994788	Chap2
ENSMUSG	53.88088	0.23821	0.801535	0.97681	Chap1
ENSMUSG	150.8089	0.160898	0.390899	0.898538	Chap2
ENSMUSG	149.652	0.00000	0.00000	0.00000	Chap2b
ENSMUSG	53059.11	0.24029	0.044528	0.993437	Cib
ENSMUSG	123.8536	0.292924	0.101859	0.994922	Cif1
ENSMUSG	287.041	0.27374	0.075312	0.749994	Cdm1
ENSMUSG	159.2382	0.00000	0.00000	0.00000	Cdm2
ENSMUSG	21.19399	0.13873	0.772604	0.976663	Cid4
ENSMUSG	256.2263	0.07716	0.50991	0.929089	Clasp1
ENSMUSG	798.2008	0.09012	0.833235	0.912799	Clasp2
ENSMUSG	106.536	0.00000	0.00000	0.00000	Clasp2b
ENSMUSG	268.884	0.14274	0.386011	0.917257	Clasp3
ENSMUSG	12.1299	0.139761	0.780710	0.976106	Cla3a1
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ENSMUSG	158.257	0.00000	0.00000	0.00000	Cit2
ENSMUSG	245.761	0.255766	0.06199	0.736482	Cid2
ENSMUSG	7769.795	0.04899	0.751193	0.993173	Cln3
ENSMUSG	884.5505	0.064195	0.642465	0.953993	Cln4
ENSMUSG	346.138	0.00000	0.00000	0.00000	Cln4b
ENSMUSG	346.133	0.005361	0.732749	0.996208	Cln6
ENSMUSG	1971.967	0.172109	0.248125	0.970074	Cln7
ENSMUSG	97.57006	0.12925	0.240611	0.875927	Cid2
ENSMUSG	346.563	0.00000	0.00000	0.00000	Cid3
ENSMUSG	1307.516	0.17512	0.362299	0.914223	Cdm1
ENSMUSG	1306.621	0.047022	0.340619	0.921221	Cdm12
ENSMUSG	903.9885	0.20648	0.448214	0.922202	Cdm14
ENSMUSG	10.0794	0.00000	0.00000	0.00000	Cdm15
ENSMUSG	70.73097	0.69713	0.105218	0.804969	Cdm2
ENSMUSG	9.422801	0.477485	0.487435	Nia	Cldn20
ENSMUSG	13.86273	0.781971	0.238378	0.87284	Cldn12
ENSMUSG	159.2374	0.00000	0.00000	0.00000	Cldn13

ENSMUSGcc1	1709.12	0.270081	0.01
ENSMUSGcc137956	59.89473	0.651599	0.01
ENSMUSGccap2	42.34878	0.04839	0.12
ENSMUSGccap3	54.42872	0.03975	0.12
ENSMUSGccap4	1120.252	0.19277	0.14257
ENSMUSGccap5	8679.452	0.160891	0.12
ENSMUSGccab	63859.18	0.03711	0.1
ENSMUSGccaf	11.57518	0.03893	0.18
ENSMUSGccxm1	3734.326	0.06119	0.633
ENSMUSGccib1	57.40085	0.76234	0.76
ENSMUSGccsc2	226.51579	0.19301	0.06
ENSMUSGccslap1	8006.522	0.49518	0.20
ENSMUSGccslap2	9274.885	0.1674	0.36
ENSMUSGccslarp	2222.08	0.79002	0.59
ENSMUSGccclb1	303.3331	0.05415	0.06
ENSMUSGccclca1	18.93111	0.40051	0.88
ENSMUSGccclca2	144.8878	0.1674	0.36
ENSMUSGccclcf1	68.74442	0.00563	0.88
ENSMUSGccclcn1	119.3782	0.10370	0.56
ENSMUSGccclcn2	2620.6	0.176226	0.11
ENSMUSGccclcn3	119.3782	0.10370	0.56
ENSMUSGccclcn4	8813.37	0.24256	0.06
ENSMUSGccclcn5	356.3565	0.46479	0.01
ENSMUSGccclcn6	3408.13	0.28077	0.04
ENSMUSGccclcn7	157.8845	0.24256	0.06
ENSMUSGccclcn10	85.37629	0.38288	0.13
ENSMUSGccclcn11	2779.512	0.15633	0.28
ENSMUSGccclcn10	10687.46	0.78267	0.18
ENSMUSGccclcn11	23.1487	0.00001	0.1
ENSMUSGccclcn14	95.64746	0.35891	0.1
ENSMUSGccclcn19	1437326	0.85047	0.00001
ENSMUSGccclcn22	62.10573	0.033771	0.96
ENSMUSGccclcn23	17.87084	0.033771	0.96
ENSMUSGccclcn24	13.10486	0.06627	0.21
ENSMUSGccclcn31	65.8261	0.033771	0.96
ENSMUSGccclcn32	1950.177	0.14874	0.07
ENSMUSGccclcn33	3419.752	0.20045	0.07
ENSMUSGccclcn34	49.07152	0.242964	0.38
ENSMUSGccclcn35	271.4226	0.75852	0.21
ENSMUSGccclcn36	23.1487	0.00001	0.1
ENSMUSGccclcn37	101.5122	0.40026	0.1
ENSMUSGccclcn38	2927.491	0.176006	0.04
ENSMUSGccclcn39	136.1264	0.14676	0.48
ENSMUSGccclcn40	136.1264	0.14676	0.48
ENSMUSGccclcn41	184.1652	0.10888	0.95
ENSMUSGccclcn42	3097.045	0.09079	0.01
ENSMUSGccclcn43	310.2098	0.17934	0.31
ENSMUSGccclcn44	136.1264	0.14676	0.48
ENSMUSGccclcn45	55.7492	0.16448	0.5
ENSMUSGccclcn46	72.06554	0.50239	0.11
ENSMUSGccclcn47	12.2945	0.49518	0.38
ENSMUSGccclcn48	12.2945	0.49518	0.38
ENSMUSGccclcn49	24.63607	0.60273	0.12
ENSMUSGccclcn50	11.1746	0.37284	0.00001
ENSMUSGccclcn51	648.2884	0.05019	0.71
ENSMUSGccclcn52	11.1746	0.37284	0.00001
ENSMUSGccclcn53	7786.698	0.02379	0.82
ENSMUSGccclcn54	293.2385	0.295875	0.21
ENSMUSGccclcn55	214.7135	0.1666	0.84
ENSMUSGccclcn56	1422.876	0.26208	0.58
ENSMUSGccclcn57	757.797	0.06699	0.52
ENSMUSGccclcn58	4402.548	0.06643	0.47
ENSMUSGccclcn59	13384.6	0.16666	0.25
ENSMUSGccclcn60	1126.92	0.02789	0.76
ENSMUSGccclcn61	1324.04	0.13204	0.00001
ENSMUSGccclcn62	1000.602	0.148885	0.20
ENSMUSGccclcn63	2113.634	0.04901	0.62
ENSMUSGccclcn64	183.1656	0.10534	0.36
ENSMUSGccclcn65	726.1943	0.06061	0.48
ENSMUSGccclcn66	560.2289	0.34534	0.34
ENSMUSGccclcn67	459.4054	0.26553	0.08
ENSMUSGccclcn68	136.1264	0.14676	0.48
ENSMUSGccclcn69	136.804	0.13124	0.01
ENSMUSGccclcn70	1847.518	0.03842	0.66
ENSMUSGccclcn71	1872.251	0.07876	0.37
ENSMUSGccclcn72	1872.251	0.07876	0.37
ENSMUSGccclcn73	2166.507	0.097513	0.32
ENSMUSGccclcn74	1477.551	0.061297	0.5
ENSMUSGccclcn75	8390.923	0.23755	0.07
ENSMUSGccclcn76	1422		

38	ENSMUSG.Cln1	1476.705	0.124782	0.355156	0.912411
39	ENSMUSG.Cln2	67.3733	0.107739	0.986866	0.99594
40	ENSMUSG.Cln3	44.8509	0.18877	0.951591	0.99478
41	ENSMUSG.Cln4	115.808	0.160808	0.30769	0.98938
42	ENSMUSG.Cln5	714.62	0.12942	0.28588	0.89306
43	ENSMUSG.Cln6	33059.11	-0.24029	0.24568	0.683437
44	ENSMUSG.Cln7	287.707	-0.23734	0.707513	0.767994
45	ENSMUSG.Cln8	47.23892	-0.20055	0.41212	0.712757
46	ENSMUSG.Cln9	21.19199	-0.13853	0.772604	0.974463
47	ENSMUSG.Cln10	2562.63	-0.14044	0.1414	0.97106
48	ENSMUSG.Cln11	96.9612	-0.1509	0.38325	0.917257
49	ENSMUSG.Cln12	2049.536	0.11096	0.53269	0.937216
50	ENSMUSG.Cln13	268.484	-0.14274	0.378601	0.917257
51	ENSMUSG.Cln14	12.9699	0.139761	0.7801	0.976106
52	ENSMUSG.Cln15	12.26288	0.139761	0.7801	0.976106
53	ENSMUSG.Cln16	62.3268	0.28311	0.98945	0.99728
54	ENSMUSG.Cln17	110.2557	0.157316	0.468832	0.92541
55	ENSMUSG.Cln18	2457.161	0.252766	0.06199	0.976482
56	ENSMUSG.Cln19	8844.505	0.064195	0.62465	0.953903
57	ENSMUSG.Cln20	409.2985	0.12486	0.216821	0.892412
58	ENSMUSG.Cln21	3465.133	0.053561	0.72429	0.967228
59	ENSMUSG.Cln22	112.619	0.04004	0.05884	0.978256
60	ENSMUSG.Cln23	97.57006	0.28311	0.98945	0.975927
61	ENSMUSG.Cln24	2524.563	-0.16391	0.292979	0.885838
62	ENSMUSG.Cln25	13071.56	0.175131	0.362799	0.914223
63	ENSMUSG.Cln26	10.03877	-0.1885	0.40785	0.976106
64	ENSMUSG.Cln27	12.7778	-0.17791	0.28311	0.872841
65	ENSMUSG.Cln28	12.9744	0.03437	0.493831	0.99306
66	ENSMUSG.Cln29	19.2288	-0.51978	0.336266	0.913358
67	ENSMUSG.Cln30	12.4272	-0.6133	0.336266	0.913358
68	ENSMUSG.Cln31	197.324	0.161367	0.04905	0.922202
69	ENSMUSG.Cln32	3332.983	0.001009	0.9942	0.998813
70	ENSMUSG.Cln33	44.50817	0.125193	0.43705	0.92541
71	ENSMUSG.Cln34	215.421	-0.16581	0.310484	0.95241
72	ENSMUSG.Cln35	41.912	-0.16581	0.310484	0.95241
73	ENSMUSG.Cln36	125.4205	0.486339	0.06263	0.736482
74	ENSMUSG.Cln37	2544.09	0.054744	0.652525	0.955294
75	ENSMUSG.Cln38	112.619	-0.44004	0.05884	0.728256
76	ENSMUSG.Cln39	97.57006	0.28311	0.98945	0.975927
77	ENSMUSG.Cln40	231.681	0.82438	0.07721	0.90668
78	ENSMUSG.Cln41	2767.693	-0.04266	0.73103	0.95694
79	ENSMUSG.Cln42	128.7917	0.06614	0.742903	0.96945
80	ENSMUSG.Cln43	128.7917	0.06614	0.742903	0.96945
81	ENSMUSG.Cln44	70.2143	0.357603	0.196304	0.862161
82	ENSMUSG.Cln45	68.9018	0.409016	0.895169	0.905558
83	ENSMUSG.Cln46	21.2458	-0.17233	0.50085	NA
84	ENSMUSG.Cln47	12.6628	-0.17233	0.50085	NA
85	ENSMUSG.Cln48	12.6628	-0.17233	0.50085	NA
86	ENSMUSG.Cln49	24.6282	-0.0208	0.84869	0.986888
87	ENSMUSG.Cln50	520.4776	0.097247	0.133734	0.930586
88	ENSMUSG.Cln51	6739.997	0.097247	0.133734	0.930586
89	ENSMUSG.Cln52	6739.997	0.097247	0.133734	0.930586
90	ENSMUSG.Cln53	345.3325	0.91966	0.00608	0.730482
91	ENSMUSG.Cln54	210.8219	0.242767	0.99498	0.99478
92	ENSMUSG.Cln55	2679.5	0.053561	0.72429	0.967228
93	ENSMUSG.Cln56	2979.5	0.053561	0.72429	0.96



ENSMUSG 13.05847	-0.16478	0.76767	NA	Cnpb1	ENSMUSG 3853.054	0.076213	0.555107	0.939565	Cnmn1	ENSMUSGCnt	1098.814	-0.07905	0.450246	0.883344	ENSMUSGCnt	1043.813	0.042644	0.71182	0.964363
ENSMUSG 2254.812	-0.35088	0.0311441	0.159393	Cnh1	ENSMUSG 592.764	0.235765	0.172441	0.843608	Cnm2	ENSMUSGCnt1	20.7359	-0.17328	0.385632	NA	ENSMUSGCnt1	24.004	0.29845	0.471012	0.923129
ENSMUSG 17107.37	0.086218	0.279911	0.721915	Cnh2	ENSMUSG 1500.008	0.055303	0.71214	0.946403	Cnm3	ENSMUSGCnt2	5496.551	-0.30132	0.007411	0.1965	ENSMUSGCnt2	480.019	0.054035	0.57677	0.95694
ENSMUSG 2243.591	-0.13874	0.197376	0.937604	Cnh3	ENSMUSG 530.934	0.253998	0.142604	0.831221	Cnm4	ENSMUSGCnt3	609.567	-0.0517	0.059373	0.923929	ENSMUSGCnt3	524.503	-0.1534	0.370718	0.904019
ENSMUSG 2490.484	-0.03831	0.429769	0.826510	Cnh4	ENSMUSG 2195.477	0.049144	0.621854	0.885357	Cnm5	ENSMUSGCnt4	12779.29	-0.31118	0.02871	0.58426	ENSMUSGCnt4	4355.62	0.100037	0.550297	0.938699
ENSMUSG 2906.925	0.102446	0.110726	0.530192	Cnh5	ENSMUSG 1337.956	0.154059	0.262547	0.928537	Cnm6	ENSMUSGCnt5	4162.47	-0.57377	0.00177	0.009401	ENSMUSGCnt5	1335.32	0.01467	0.91449	0.994578
ENSMUSG 417.1675	-0.09531	0.366321	0.791533	Cnh6	ENSMUSG 607.1188	0.00906	0.942729	0.994774	Cnm7	ENSMUSGCnt6	68.9438	-0.58783	0.16096	0.098478	ENSMUSGCnt6	76.396	-0.01104	0.9405	0.994798
ENSMUSG 55.88709	-0.34437	0.301998	0.570166	Cnm8	ENSMUSG 1079.679	0.151097	0.22104	0.861604	Cnm8	ENSMUSGCnt7	816.428	-0.58511	0.001	0.006438	ENSMUSGCnt7	976.575	0.252404	0.127086	0.813384
ENSMUSG 279.161	0.092848	0.513201	0.871762	Cnm9	ENSMUSG 914.1597	0.185312	0.276032	0.885057	Cnm9	ENSMUSGCnt8	515.358	-0.159	0.434406	0.828978	ENSMUSGCnt8	15.0446	0.156738	0.478372	0.923329
ENSMUSG 5444.04	0.152046	0.10052	0.590214	Cnm10	ENSMUSG 599.447	-0.03744	0.788552	0.976395	Cnm10	ENSMUSGCnt9	672.9356	-0.11837	0.247785	0.696532	ENSMUSGCnt9	675.2001	0.158222	0.182254	0.850579
ENSMUSG 3740.487	-0.25617	0.010111	0.601111	Cnm11	ENSMUSG 174.001	0.048075	0.123824	0.850579	Cnm11	ENSMUSGCnt10	902.954	-0.21381	0.077607	0.138789	ENSMUSGCnt10	49.0798	0.054918	0.979798	0.937198
ENSMUSG 894.836	-0.21939	0.130657	0.425202	Cnm12	ENSMUSG 780.1838	0.188006	0.141431	0.830678	Cnm12	ENSMUSGCnt11	7788.36	-0.44476	0.005536	0.020832	ENSMUSGCnt11	3114.117	0.173733	0.084920	0.877904
ENSMUSG 1493.825	-0.23866	0.060797	0.380809	Cnm13	ENSMUSG 1745.134	0.052743	0.700159	0.961335	Cnm13	ENSMUSGCnt12	221.7294	-0.47483	0.007789	0.12245	ENSMUSGCnt12	266.7949	0.150591	0.071553	0.761942
ENSMUSG 492.5008	-0.23725	0.139136	0.555202	Cnm14	ENSMUSG 1122.216	-0.0067	0.95939	0.949798	Cnm14	ENSMUSGCnt13	587.5882	-0.47106	0.00354	0.097484	ENSMUSGCnt13	653.6435	0.354971	0.422862	0.912757
ENSMUSG 2561.592	0.177356	0.070841	0.1123	Cnm15	ENSMUSG 606.8436	0.020003	0.987129	0.99751	Cnm15	ENSMUSGCnt14	877.885	-0.49203	0.033832	0.079288	ENSMUSGCnt14	986.4174	0.153584	0.422139	0.912757
ENSMUSG 1407.448	0.102532	0.765353	0.958481	Cnm16	ENSMUSG 1647.11	-0.2127	0.080701	0.71681	Cnm16	ENSMUSGCnt15	185.4928	-0.35571	0.163359	0.59451	ENSMUSGCnt15	1211.774	0.28503	0.04619	0.69004
ENSMUSG 696.6512	-0.00975	0.493495	0.993231	Cnm17	ENSMUSG 1065.024	0.181411	0.354105	0.971209	Cnm17	ENSMUSGCnt16	35.20901	0.008407	0.778841	0.997428	ENSMUSGCnt16	38.12241	0.05562	0.96612	0.796133
ENSMUSG 1177.852	0.137539	0.15548	0.583591	Cnm18	ENSMUSG 1309.698	-0.04676	0.733326	0.967228	Cnm18	ENSMUSGCnt17	40.6187	-0.0612	0.88553	0.983008	ENSMUSGCnt17	605.8187	0.120373	0.043197	0.912757
ENSMUSG 971.811	0.09467	0.393465	0.895051	Cnm19	ENSMUSG 2538.53	-0.01653	0.88986	0.995054	Cnm19	ENSMUSGCnt18	502.708	0.188565	0.170722	0.605721	ENSMUSGCnt18	419.5235	-0.04687	0.656858	0.960867
ENSMUSG 271.9098	0.02057	0.67362	0.959147	Cnm20	ENSMUSG 408.5628	0.154731	0.320594	0.903887	Cnm20	ENSMUSGCnt19	1318.895	-0.07402	0.434639	0.828978	ENSMUSGCnt19	1120.355	-0.29529	0.023989	0.618081
ENSMUSG 1885.983	0.008707	0.939942	0.939415	Cnm21	ENSMUSG 419.1	0.275786	0.108512	0.804969	Cnm21	ENSMUSGCnt20	97.7054	-0.104807	0.60699	0.904492	ENSMUSGCnt20	76.98477	-0.33927	0.162974	0.873925
ENSMUSG 825.9561	0.049633	0.620552	0.911432	Cnm22	ENSMUSG 10.28948	0.346584	0.28484	NA	Cnm22	ENSMUSGCnt21	5962.729	-0.04703	0.97076	0.928683	ENSMUSGCnt21	50.75114	-0.1424	0.244412	0.877904
ENSMUSG 1878.854	0.001949	0.985025	0.979831	Cnm23	ENSMUSG 1293.548	-0.09718	0.576703	0.942912	Cnm23	ENSMUSGCnt22	311.3609	-0.12798	0.398702	0.812878	ENSMUSGCnt22	280.926	-0.17227	0.348836	0.911652
ENSMUSG 1276.987	0.098129	0.306567	0.72947	Cnm24	ENSMUSG 1043.813	0.042644	0.71182	0.964363	Cnm24	ENSMUSGCnt23	298.902	0.137306	0.358723	0.790019	ENSMUSGCnt23	262.937	0.022569	0.892536	0.995558
ENSMUSG 658.6529	-0.03078	0.791845	0.959463	Cnm25	ENSMUSG 24.0044	0.29845	0.471012	0.923129	Cnm25	ENSMUSGCnt24	914.2864	-0.08738	0.375015	0.887768	ENSMUSGCnt24	772.646	-0.13467	0.807789	0.894622
ENSMUSG 19610.45	0.031551	0.72419	0.944096	Cnm26	ENSMUSG 5838.872	0.050635	0.673072	0.95694	Cnm26	ENSMUSGCnt25	915.1483	0.178636	0.098965	0.408574	ENSMUSGCnt25	770.5281	-0.04191	0.702747	0.967228
ENSMUSG 1082.258	-0.10821	0.303873	0.752148	Cnm27	ENSMUSG 524.2053	-0.13542	0.203073	0.904019	Cnm27	ENSMUSGCnt26	1744.966	0.23351	0.029681	0.262543	ENSMUSGCnt26	1747.649	0.080879	0.793312	0.97681
ENSMUSG 1342.085	-0.22029	0.038045	0.699391	Cnm28	ENSMUSG 1335.162	0.100037	0.550297	0.938699	Cnm28	ENSMUSGCnt27	158.051	-0.31385	0.016459	0.19138	ENSMUSGCnt27	778.115	0.00606	0.0024	0.126005
ENSMUSG 2909.019	-0.33582	0.003428	0.071753	Cnm29	ENSMUSG 4555.322	0.01467	0.914149	0.949572	Cnm29	ENSMUSGCnt28	1387.2	-0.45439	0.01376	0.040585	ENSMUSGCnt28	149.828	0.05312	0.9123	0.877515
ENSMUSG 490.0848	-0.16511	0.242152	0.631753	Cnm30	ENSMUSG 766.7496	-0.01104	0.949579	0.949798	Cnm30	ENSMUSGCnt29	125.001	0.138179	0.216457	0.66421	ENSMUSGCnt29	1128.336	0.09764	0.245864	0.922316
ENSMUSG 3459.649	-0.599	3.23E-05	0.020865	Cnm31	ENSMUSG 976.765	0.252404	0.127086	0.813384	Cnm31	ENSMUSGCnt30	809.425	-0.01443	0.90194	0.986663	ENSMUSGCnt30	706.9165	-0.13596	0.286664	0.892356
ENSMUSG 9.584655	-0.16015	0.813929	NA	Cnm32	ENSMUSG 153.0446	0.167387	0.274372	0.932329	Cnm32	ENSMUSGCnt31	1351.219	0.081795	0.390476	0.808053	ENSMUSGCnt31	191.138	-0.02817	0.910432	0.992124
ENSMUSG 1487.599	0.041812	0.740863	0.948028	Cnm33	ENSMUSG 675.0201	-0.158212	0.139254	0.850579	Cnm33	ENSMUSGCnt32	1300.8	-0.16571	0.133539	0.150438	ENSMUSGCnt32	79.815	-0.08903	0.50451	0.93008
ENSMUSG 1098.814	-0.07905	0.450246	0.883344	Cnm34	ENSMUSG 8920.807	0.032543	0.821389	0.971958	Cnm34	ENSMUSGCnt33	643.0985	-0.033453	0.737801	0.947329	ENSMUSGCnt33	750.8258	-0.03355	0.785918	0.976285
ENSMUSG 20.77359	-0.37128	0.385632	NA	Cnm35	ENSMUSG 3114.117	0.173386	0.249028	0.792476	Cnm35	ENSMUSGCnt34	1310.222	-0.079289	0.38287	0.803337	ENSMUSGCnt34	1145.457	-0.03876	0.752225	0.970461
ENSMUSG 5696.551	-0.30132	0.070411	0.118765	Cnm36	ENSMUSG 266.7929	0.350915	0.071553	0.761942	Cnm36	ENSMUSGCnt35	1588.128	-0.119717	0.230028	0.787005	ENSMUSGCnt35	1299.779	-0.19806	0.138821	0.829247
ENSMUSG 590.6097	-0.1017	0.550197	0.993231	Cnm37	ENSMUSG 653.6435	0.145751	0.354105	0.971209	Cnm37	ENSMUSGCnt36	40.6187	-0.0612	0.88553	0.983008	ENSMUSGCnt36	1120.355	-0.29529	0.023989	0.618081
ENSMUSG 12779.29	-0.31118	0.02871	0.258426	Cnm38	ENSMUSG 586.4714	0.153584	0.422139	0.912757	Cnm38	ENSMUSGCnt37	363.7846	-0.18139	0.03678	0.787901	ENSMUSGCnt37	331.9541	-0.08497	0.421964	0.912757
ENSMUSG 4162.47	-0.57377	0.00017	0.000001	Cnm39	ENSMUSG 121.7752	0.528503	0.046219	0.690304	Cnm39	ENSMUSGCnt38	9.10504	-0.12243	0.133525	NA	ENSMUSGCnt38	10.98255	-0.18897	0.779673	NA
ENSMUSG 685.5902	-0.68783	6.37E-06	0.000807	Cnm40	ENSMUSG 39.1241	0.555002	0.096182	0.796313	Cnm40	ENSMUSGCnt39	455.7799	0.339175	0.102525	0.492417	ENSMUSGCnt39	354.5365	-0.10691	0.654707	0.950515
ENSMUSG 818.4248	-0.58511	0.0001	0.006638	Cnm41	ENSMUSG 405.8187	0.120373	0.043197	0.912757	Cnm41	ENSMUSGCnt40	175.555	-0.1024	0.38685	0.796202	ENSMUSGCnt40	1703.38	0.128606	0.449051	0.912757
ENSMUSG 151.3385	-0.159	0.247406	0.897879	Cnm42	ENSMUSG 419.1255	-0.06487	0.949579	0.949798	Cnm42	ENSMUSGCnt41	1340.848	-0.16571	0.133539	0.150438	ENSMUSGCnt41	81.814	-0.08903	0.50451	0.93008
ENSMUSG 672.9356	-0.11837	0.247785	0.696532	Cnm43	ENSMUSG 120.555	-0.29529	0.023989	0.618081	Cnm43	ENSMUSGCnt42	160.6392	-0.05295	0.380879	0.947999	ENSMUSGCnt42	60.62992	-0.05295	0.140791	0.830678
ENSMUSG 9024.274	-0.21382	0.077607	0.138789	Cnm44	ENSMUSG 76.9387	-0.33387	0.162599	0.817925	Cnm44	ENSMUSGCnt43	72.6935	-0.45722	0.059062	0.373588	ENSMUSGCnt43	82.56165	-0.07457	0.76727	0.974236
ENSMUSG 2789.368	-0.44476	0.00514	0.020832	Cnm45	ENSMUSG 5075.114	-0.15424	0.244412	0.877515	Cnm45	ENSMUSGCnt44	273.845	-0.08518	0.051705	0.886038	ENSMUSGCnt44	226.8414	-0.18242	0.390367	0.912757
ENSMUSG 211.7294	0.173386	0.249028	0.792476	Cnm46	ENSMUSG 280.298	-0.17127	0.01467	0.914149	Cnm46	ENSMUSGCnt45	120.7661	-0.05439	0.01376	0.040585	ENSMUSGCnt45	720.828	-0.05312	0.9123	0.877515
ENSMUSG 587.5882	-0.47106	0.00354	0.097484	Cnm47	ENSMUSG 262.2937	0.022569	0.892536	0.995054	Cnm47	ENSMUSGCnt46	21.52258	-0.79974	0.05067	0.730247	ENSMUSGCnt46	20.79292	-0.53673	0.25411	0.882296
ENSMUSG 877.885	-0.49203	0.003832	0.077288	Cnm48	ENSMUSG 772.646	-0.13467	0.287789	0.894622	Cnm48	ENSMUSGCnt47	175.353	-0.04035	0.622288	0.911432	ENSMUSGCnt47	162.2437	-0.18041	0.480924	0.925458
ENSMUSG 98.14398	-0.35571	0.163359																	



ENSMUSUG 1018.679 0.095231 3.072024 1.977542 Coa8a  
ENSMUSUG 1688.2972 0.057887 0.645423 0.917773 Coa8b  
ENSMUSUG 1825.953 0.091138 0.921516 0.74329 CoaP  
ENSMUSUG 1994.361 -0.00014 0.999243 0.99998 Coa1a  
ENSMUSUG 1657.063 0.031615 1.730768 0.944496 Coa1b  
ENSMUSUG 2394.681 0.068254 0.548995 0.848224 Coa1c  
ENSMUSUG 1111.39 0.146883 0.232527 0.95198 Coa2a  
ENSMUSUG 5894.47 0.040537 0.705144 0.938303 Coa2b  
ENSMUSUG 1344.793 0.048632 0.369866 0.797346 Coa6  
ENSMUSUG 2163.838 -0.01208 0.915728 0.988834 Coa7  
ENSMUSUG 302.706 0.000000 0.999999 0.999999 Coa8  
ENSMUSUG 2952.381 0.124205 0.717459 0.614774 Coa1  
ENSMUSUG 2603.017 -0.02863 0.832616 0.970333 Coa1  
ENSMUSUG 857.6407 -0.06405 0.571338 0.883319 Coa10  
ENSMUSUG 305.1223 0.03984 0.488279 0.53256 Coa11  
ENSMUSUG 1580.787 0.014635 0.890703 0.897864 Coa4  
ENSMUSUG 610.6457 -0.119 0.261907 0.712228 Coa1  
ENSMUSUG 107.5324 -0.08525 0.666419 0.927243 Coa16  
ENSMUSUG 1358.457 -0.07398 0.712209 0.940667 Coa7  
ENSMUSUG 288.0386 -0.05513 0.789078 0.959307 Coa18  
ENSMUSUG 857.2658 0.089652 0.439121 0.830714 Coa9  
ENSMUSUG 746.9791 0.064371 0.656223 0.923929 Coa2  
ENSMUSUG 550.0803 -0.05866 0.678714 0.939542 Coa1  
ENSMUSUG 5300.78 -0.00551 0.977435 0.997428 Coa3  
ENSMUSUG 3041.122 0.017894 0.807517 0.963257 Coa4  
ENSMUSUG 100.1005 -0.41001 0.884409 0.447861 Coa2  
ENSMUSUG 3659.847 -0.05501 0.952628 0.902094 Coa5a  
ENSMUSUG 1037.742 -0.05507 0.444972 0.922238 Coa5b  
ENSMUSUG 126.3629 -0.00984 0.94916 0.693355 Coa5c  
ENSMUSUG 2561.738 0.00014 0.903902 0.98623 Coa6  
ENSMUSUG 292.3987 -0.05063 0.696182 0.938507 Coa6a2  
ENSMUSUG 10012.78 -0.01689 0.83019 0.90974 Coa6b1  
ENSMUSUG 85.58447 -0.12113 0.951093 0.897394 Coa6b2  
ENSMUSUG 1181.638 0.054503 0.514537 0.872055 Coa7c  
ENSMUSUG 62.1596 0.123649 0.615764 0.910647 Coa7a1  
ENSMUSUG 553.858 0.043051 0.606643 0.90443 Coa7a2  
ENSMUSUG 680.98 0.05082 0.606643 0.90443 Coa7a3  
ENSMUSUG 4848.425 -0.05726 0.959142 0.888638 Coa7b  
ENSMUSUG 6242.983 0.026727 0.781133 0.957558 Coa7c  
ENSMUSUG 34552.59 0.000482 0.995467 0.99943 Coa8  
ENSMUSUG 15.89983 -0.41562 0.420222 Na Coa8b  
ENSMUSUG 405.4205 0.002036 0.261512 0.8677 Coa  
ENSMUSUG 29.6986 -0.22601 0.581405 0.990705 Coa  
ENSMUSUG 2599.406 -0.42213 0.008308 0.127522 Cpd  
ENSMUSUG 32140.71 0.09524 0.730922 0.782621 Cpd  
ENSMUSUG 1344.247 -0.00001 0.999999 0.999999 Cpd  
ENSMUSUG 1538.889 -0.01122 0.907989 0.9878 Cpd2  
ENSMUSUG 1183.312 -0.07554 0.46759 0.848419 Cpd3  
ENSMUSUG 2518.282 -0.30499 0.021026 0.020255 Cpd4  
ENSMUSUG 171.0893 -0.09839 0.789078 0.959307 Cpd5  
ENSMUSUG 1861.1229 0.06224 0.539955 0.88315 Cpd1a1  
ENSMUSUG 22.8785 0.083579 0.827898 0.968966 Cpd1a2  
ENSMUSUG 21595.5 0.080432 0.340025 0.779599 Cpd1  
ENSMUSUG 5483.173 0.04004 0.637443 0.945073 Cpd2  
ENSMUSUG 5202.242 0.020981 0.864046 0.973938 Cpd2  
ENSMUSUG 1119.798 0.195468 0.686846 0.951903 Cpd3  
ENSMUSUG 352.7308 -0.20402 0.61495 0.762515 Cpd3  
ENSMUSUG 1484.519 0.062136 0.516116 0.872701 Cpd2  
ENSMUSUG 913.0259 0.102777 0.417976 0.813964 Cpd1  
ENSMUSUG 1016.202 -0.07531 0.508559 0.868389 Cpd4  
ENSMUSUG 2354.981 -0.25021 0.066512 0.38886 Cpd5  
ENSMUSUG 4492.791 0.469464 0.04386 0.086463 Cpd6  
ENSMUSUG 2375.884 0.102777 0.417976 0.813964 Cpd7  
ENSMUSUG 426.4924 -0.04679 0.70057 0.93743 Cpd8  
ENSMUSUG 1638.371 0.188874 0.169179 0.903637 Cpd9  
ENSMUSUG 1021.761 -0.35677 0.00044 0.016023 Cpd  
ENSMUSUG 1710.456 -0.00889 0.749156 0.968966 Cpd1  
ENSMUSUG 1113.305 -0.20746 0.689559 0.945149 Cpd2  
ENSMUSUG 9.08372 0.09141 0.488316 Na Cpd1  
ENSMUSUG 1841.014 0.132799 0.172477 0.607771 Cpd1  
ENSMUSUG 1305.711 0.134804 0.263563 0.714284 Cpd1  
ENSMUSUG 1247.694 0.020981 0.864046 0.973938 Cpd2  
ENSMUSUG 567.7388 -0.06983 0.653491 0.922819 Cpd1  
ENSMUSUG 1249.556 -0.02651 0.797452 0.960507 Cpd6  
ENSMUSUG 2304.901 0.011292 0.90289 0.980955 Cpd7  
ENSMUSUG 2642.803 -0.04144 0.712176 0.845297 Cpd1  
ENSMUSUG 337.0553 0.071467 0.576226 0.895164 Cpd2  
ENSMUSUG 461.3432 0.025565 0.831185 0.968989 Cpd  
ENSMUSUG 3667.7993 0.000000 0.999999 0.999999 Cpd1  
ENSMUSUG 126.9374 -0.30783 0.141564 0.558606 Cpd2  
ENSMUSUG 58.50503 -0.22478 0.402717 0.81552 Cpd  
ENSMUSUG 747.6031 -0.04701 0.778531 0.956215 Cpd1  
ENSMUSUG 21.31341 -0.30189 0.549302 0.88741 Cpd1  
ENSMUSUG 73.74432 0.04162 0.107719 0.619178 Cpd1  
ENSMUSUG 1433.045 0.115827 0.178688 0.616298 Cpd1  
ENSMUSUG 6441.913 0.058115 0.64267 0.918685 Cpd1  
ENSMUSUG 81.21331 -0.37566 0.100257 0.48338 Cpd2a  
ENSMUSUG 114.5466 0.112117 0.08621 0.962049 Cpd2b  
ENSMUSUG 149.9534 -0.00861 0.962049 0.993931 Cpd1  
ENSMUSUG 1465.831 0.079576 0.36803 0.801757 Cpd1  
ENSMUSUG 2598.32 0.164883 0.047825 0.339333 Cpd1  
ENSMUSUG 21.89836 0.000000 0.999999 0.999999 Cpd1  
ENSMUSUG 278.0581 0.093717 0.538752 0.882272 Cpd1  
ENSMUSUG 18.63984 -0.08026 0.869404 Na Cpd3  
ENSMUSUG 966.307 0.011305 0.910814 0.988386 Cpd1  
ENSMUSUG 768.1508 0.034138 0.763799 0.954013 Cpd1  
ENSMUSUG 1112.853 0.14358 0.07815 0.811738 Cpd1  
ENSMUSUG 1351.33 -0.20682 0.070352 0.49098 Cpd3  
ENSMUSUG 270.4077 -0.16099 0.321572 0.766705 Cpd3b1  
ENSMUSUG 645.2099 -0.07007 0.821418 0.962448 Cpd3b2  
ENSMUSUG 14.52174 0.01719 0.719991 0.962448 Cpd3b3  
ENSMUSUG 17.75931 -0.69507 0.128813 Na Cpd3b4  
ENSMUSUG 132.7368 -0.51801 0.00207 0.142701 Cpd5  
ENSMUSUG 2055.405 -0.073439 0.450671 0.838475 Cpd5b  
ENSMUSUG 1174.211 -0.14742 0.00000 0.999999 Cpd1  
ENSMUSUG 1350.154 0.14277 0.519364 0.88868 Cpd1  
ENSMUSUG 1326.885 -0.1447 0.160839 0.950628 Cpd1  
ENSMUSUG 1393.227 -0.33692 0.015722 0.181786 Cpd1  
ENSMUSUG 3045.003 -0.29026 0.08325 0.465247 Cpd2  
ENSMUSUG 2085.514 0.29026 0.08325 0.465247 Cpd2  
ENSMUSUG 640.6431 -0.00126 0.929292 0.999237 Cpd1  
ENSMUSUG 460.2017 0.054547 0.658887 0.924502 Cpd1  
ENSMUSUG 257.9942 -0.73036 0.00035 0.016296 Cpd1  
ENSMUSUG 531.404 -0.39891 0.009245 0.016296 Cpd1  
ENSMUSUG 1037.193 -0.0062 0.999999 0.999999 Cpd1  
ENSMUSUG 58.1888 -0.04154 0.686823 0.976541 Cpd1  
ENSMUSUG 1872.054 -0.08113 0.532459 0.879955 Cpd1  
ENSMUSUG 91.1278 0.13067 0.573794 0.888799 Cpd1  
ENSMUSUG 4460.588 0.015236 0.846974 0.972734 Cpd1  
ENSMUSUG 68.95793 0.345804 0.08211 0.442642 Cpd3  
ENSMUSUG 1087.233 0.030331 0.789881 0.959461 Cpd1  
ENSMUSUG 89.41266 -0.10139 0.648292 0.919493 Cpd1  
ENSMUSUG 122.0113 -0.00086 0.974169 0.99691 Cpd1  
ENSMUSUG 96.56861 -0.02156 0.923222 0.99045 Cpd1  
ENSMUSUG 4016.785 0.099991 0.310266 0.758431 Cpd1  
ENSMUSUG 1706.342 0.188006 0.034271 0.128404 Cpd1  
ENSMUSUG 212.951 0.08514 0.902869 Cpd1  
ENSMUSUG 830.4585 -0.10051 0.36872 0.95356 Cpd2  
ENSMUSUG 708.586 0.16099 0.171439 0.605943 Cpd1  
ENSMUSUG 708.4283 0.046436 0.70094 0.93743 Cpd1  
ENSMUSUG 4385.913 0.00000 0.999999 0.999999 Cpd1  
ENSMUSUG 17.6807 0.304188 0.504308 Na Cpd1  
ENSMUSUG 443.4003 0.015661 0.889296 0.985633 Cpd1  
ENSMUSUG 2000.0076 0.300242 0.039979 0.3082 Cpd1  
ENSMUSUG 52.89693 0.00000 0.999999 0.999999 Cpd1  
ENSMUSUG 2836.392 0.155319 0.828437 0.71386 Cpd1  
ENSMUSUG 155.7725 -0.05846 0.37763 0.947329 Cpd2a  
ENSMUSUG 2219.207 -0.26933 0.070188 0.490798 Cpd2b  
ENSMUSUG 774.9896 -0.18044 0.336677 0.777 Cpd1  
ENSMUSUG 9194.981 -0.01267 0.999999 0.999999 Cpd1  
ENSMUSUG 980.7799 -0.04656 0.958953 0.932981 Cpd2  
ENSMUSUG 850.3839 0.041161 0.679377 0.930883 Cpd1  
ENSMUSUG 551.9593 -0.0302 0.7873 0.952515 Cpd1  
ENSMUSUG 320.011 0.18812 0.00000 0.999999 Cpd1  
ENSMUSUG 5220.011 -0.00144 0.988416 0.999109 Cpd1  
ENSMUSUG 17.14335 0.045439 0.358862 Na Cpd2  
ENSMUSUG 43.79325 0.47117 0.120405 0.523983 Cpd4  
ENSMUSUG 408.977 0.125093 0.018283 0.240568 Cpd1  
ENSMUSUG 47.42893 0.104936 0.714809 0.94406 Cpd1  
ENSMUSUG 54.28505 -0.25072 0.346227 0.779153 Cpd1  
ENSMUSUG 22.1694 -0.21778 0.60363 0.904887 Cpd2  
ENSMUSUG 360.4838 -0.08292 0.561069 0.888934 Cpd1  
ENSMUSUG 15.9797 0.08422 0.154942 0.88422 Cpd1  
ENSMUSUG 378.0326 -0.02148 0.881439 0.988198 Cpd1  
ENSMUSUG 1965.422 -0.27809 0.021463 0.525733 Cpd1  
ENSMUSUG 744.0903 0.006493 0.962771 0.994624 Cpd1  
ENSMUSUG 1430.742 0.021703 0.816392 0.965495 Cpd1

ENSMUSUG 343.0412 -0.00772 0.958988 0.994798 Cpd1  
ENSMUSUG 2457.863 -0.13974 0.287911 0.894644 Cpd1  
ENSMUSUG 1863.827 -0.00487 0.761495 0.9178 Cpd1  
ENSMUSUG 812.8741 0.054285 0.854003 0.955015 Cpd1  
ENSMUSUG 255.8617 0.086501 0.57186 0.94237 Cpd1  
ENSMUSUG 1341.383 -0.00286 0.518057 0.837724 Cpd1  
ENSMUSUG 151.3493 -0.14449 0.92763 0.96448 Cpd1  
ENSMUSUG 94.9426 -0.17742 0.450527 0.922220 Cpd1  
ENSMUSUG 1174.31 -0.20017 0.103162 0.904969 Cpd1  
ENSMUSUG 290.3285 0.149569 0.310084 0.8987 Cpd1  
ENSMUSUG 740.827 -0.01058 0.984626 0.999999 Cpd1  
ENSMUSUG 587.787 0.39063 0.056453 0.072362 Cpd2  
ENSMUSUG 485.3136 -0.16041 0.926094 0.897019 Cpd2  
ENSMUSUG 4494.649 -0.22528 0.587462 0.949493 Cpd3  
ENSMUSUG 2647.708 -0.14309 0.748894 0.848462 Cpd4  
ENSMUSUG 100.4557 -0.09992 0.92173 0.96448 Cpd2  
ENSMUSUG 3198.171 -0.18397 0.198103 0.836241 Cpd5a  
ENSMUSUG 858.734 -0.2555 0.018066 0.50045 Cpd5b  
ENSMUSUG 100.144 -0.5059 0.029389 0.03923 Cpd5b  
ENSMUSUG 2175.31 -0.20094 0.046979 0.706064 Cpd6  
ENSMUSUG 262.2809 -0.09702 0.521584 0.932571 Cpd6a2  
ENSMUSUG 8354.894 -0.28625 0.010981 0.046458 Cpd6  
ENSMUSUG 76.26321 -0.18264 0.450568 0.922220 Cpd6b  
ENSMUSUG 5966.111 -0.17411 0.111015 0.067885 Cpd6  
ENSMUSUG 47.50051 -0.39792 0.198016 0.862161 Cpd7a1  
ENSMUSUG 4610.507 -0.22893 0.040592 0.683847 Cpd7a2  
ENSMUSUG 527.122 -0.12387 0.287175 0.894891 Cpd7a2  
ENSMUSUG 490.4121 -0.33852 0.008274 0.388416 Cpd7b  
ENSMUSUG 255.1066 -0.1545 0.935186 0.8569 Cpd7b  
ENSMUSUG 2001.219 -0.24717 0.02486 0.558258 Cpd8a  
ENSMUSUG 14.84473 -0.42583 0.438507 0.922017 Cpd8b  
ENSMUSUG 438.0296 -0.28896 0.152425 0.837724 Cpd  
ENSMUSUG 25.9995 -0.37166 0.398027 0.972734 Cpd  
ENSMUSUG 2841.143 0.136393 0.483354 0.92499 Cpd  
ENSMUSUG 2812.014 -0.10122 0.86595 0.987156 Cpd  
ENSMUSUG 1326.239 0.216778 0.075897 0.768524 Cpd1  
ENSMUSUG 1488.376 0.158843 0.01963 0.8569 Cpd1  
ENSMUSUG 1087.34 -0.04691 0.711545 0.964343 Cpd3b3  
ENSMUSUG 2488.257 -0.05555 0.688664 0.909742 Cpd4  
ENSMUSUG 167.9171 0.342749 0.06746 0.768524 Cpd1  
ENSMUSUG 1735.558 0.00549 0.962888 0.999999 Cpd1a1  
ENSMUSUG 24.11591 0.432778 0.988938 Cpd1a2  
ENSMUSUG 187.814 -0.15132 0.814818 0.836241 Cpd1  
ENSMUSUG 4846.228 -0.04558 0.65107 0.957676 Cpd2  
ENSMUSUG 449.3242 -0.13742 0.304798 0.950646 Cpd2  
ENSMUSUG 913.2186 -0.01214 0.959142 0.96448 Cpd3  
ENSMUSUG 462.9216 0.768048 0.004408 0.029992 Cpd  
ENSMUSUG 11.97977 0.162477 0.805004 Na Cpd1  
ENSMUSUG 1232.659 -0.2167 0.090719 0.796333 Cpd2  
ENSMUSUG 793.7823 -0.03417 0.979323 0.999999 Cpd2  
ENSMUSUG 962.1459 0.032417 0.824929 0.981633 Cpd2  
ENSMUSUG 2145.888 0.734432 -0.40512 0.101787 0.887128 Cpd5  
ENSMUSUG 3491.128 0.03433 0.831065 0.98051 Cpd6  
ENSMUSUG 1874.483 0.249193 0.024587 0.845441 Cpd7  
ENSMUSUG 384.4145 -0.05148 0.728938 0.964919 Cpd7  
ENSMUSUG 1348.079 -0.1031 0.84819 0.945749 Cpd8  
ENSMUSUG 1079.709 0.092723 0.304902 0.923329 Cpd  
ENSMUSUG 1478.952 -0.20978 0.173166 0.828492 Cpd1  
ENSMUSUG 1071.533 -0.04212 0.742691 0.960077 Cpd  
ENSMUSUG 8.60035 0.411646 0.55947 Na Cpd1  
ENSMUSUG 1584.418 -0.02803 0.818653 0.979198 Cpd1  
ENSMUSUG 1152.213 0.041697 0.773245 0.974525 Cpd2  
ENSMUSUG 1097.661 -0.07758 0.909363 0.999999 Cpd2  
ENSMUSUG 549.172 0.105613 0.09563 0.072732 Cpd4  
ENSMUSUG 1316.814 0.210734 0.004427 0.270226 Cpd  
ENSMUSUG 2161.998 0.093339 0.437214 0.920414 Cpd7  
ENSMUSUG 2803.83 -0.04314 0.440137 0.981633 Cpd1a  
ENSMUSUG 1488.226 0.05489 0.887505 Cpd1  
ENSMUSUG 283.131 -0.16349 0.281055 0.945209 Cpd1  
ENSMUSUG 429.1373 0.089745 0.529038 0.934795 Cpd1  
ENSMUSUG 376.1627 0.093814 0.101929 0.934795 Cpd1  
ENSMUSUG 1165.365 0.26113 0.845297 0.999999 Cpd2  
ENSMUSUG 495.6632 -0.40794 0.719938 0.850377 Cpd  
ENSMUSUG 711.7753 0.084837 0.464514 0.953988 Cpd1  
ENSMUSUG 25.3622 0.389226 0.949759 0.932329 Cpd1  
ENSMUSUG 71.1552 0.007346 0.98718 0.999999 Cpd1  
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ENSMUSUG 5827.814 0.052262 0.706296 0.963467 Cpd1  
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ENSMUSUG 71.1552 0.007346 0.98718 0.999999 Cpd1  
ENSMUSUG 152.867 -0.00287 0.993625 0.999999 Cpd1  
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ENSMUSUG 135.352 -0.00287 0.993625 0.999999 Cpd1  
ENSMUSUG 71.1552 0.007346 0.98718 0.999999 Cpd1  
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ENSMUSUG 71.71562 0.007346 0.98718 0.999999 Cpd1  
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ENSMUSUG 135.352 -0.00287 0.993625 0.999999 Cpd1  
ENSMUSUG 71.1552 0.007346 0.98718 0.999999 Cpd1  
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ENSMUSUG 71.1552 0.007346 0.98718 0.999999 Cpd1  
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ENSMUSUG 71.1552 0.007346 0.98718 0.999999 Cpd1  
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ENSMUSUG 380.06 0.12374 0.160269 0.598553 Cslad  
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ENSMUSUG 213.168 0.032404 0.74248 0.955608 Cslad  
ENSMUSUG 431.328 0.09123 0.418489 0.976269 Cslad  
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ENSMUSG 2047.121 -0.13319 0.000000 0.000000 D9a1p3  
ENSMUSG 66.9613 0.25817 0.312516 0.930037 Daamr  
ENSMUSG 258.444 -0.08 0.640946 0.900339 Daamr  
ENSMUSG 331.8394 -0.10949 0.475491 0.923329 Daamr  
ENSMUSG 17.075 -0.09585 0.42682 0.917257 D9a1p3  
ENSMUSG 2246.111 0.17318 0.98862 0.98862 D9a1p3  
ENSMUSG 58.20028 -0.54126 0.06838 0.78906 D9a1p3  
ENSMUSG 891.697 0.008534 0.94682 0.99478 D9a1p3  
ENSMUSG 9.244189 -0.0061 0.885787 N/A D9a1p3  
ENSMUSG 416.722 0.18174 0.29624 0.40465 D9a1p3  
ENSMUSG 145.5256 -0.22556 0.03008 0.77681 D9a1p3  
ENSMUSG 4002.162 -0.17553 0.247428 0.98768 D9a1p3  
ENSMUSG 14.52879 0.240321 0.682209 0.897854 Daamr  
ENSMUSG 47.1695 0.000000 0.000000 0.000000 D9a1p3  
ENSMUSG 1020.072 0.021451 0.88316 0.986547 D9a1p3  
ENSMUSG 7538.654 -0.11904 0.396392 0.917257 D9a1p3  
ENSMUSG 12.0074 0.11904 0.396392 0.917257 D9a1p3  
ENSMUSG 69.2073 0.34666 0.917257 D9a1p3  
ENSMUSG 13.0271 0.23333 0.42207 0.917257 D9a1p3  
ENSMUSG 18.13015 0.56475 0.76044 0.98542 D9a1p3  
ENSMUSG 9522.409 -0.24162 0.085209 0.797799 D9a1p3  
ENSMUSG 19.6189 -0.52255 0.25917 0.893906 D9a1p3  
ENSMUSG 1107.914 -0.00851 0.94318 0.99478 D9a1p3  
ENSMUSG 270.873 0.139155 0.98862 0.98862 D9a1p3  
ENSMUSG 3357.342 0.017747 0.896192 0.905558 D9a1p3  
ENSMUSG 1671.982 -0.10988 0.36088 0.89853 D9a1p3  
ENSMUSG 418.807 0.923962 0.3276 0.4208 D9p  
ENSMUSG 9097.515 0.000000 0.000000 0.000000 D9a1p3  
ENSMUSG 215.7652 0.012315 0.944411 0.9



ENSMUSGDC147	9687.066	0.6755	0.858191	0.974672	ENSMUSGDC147	9217.98	0.138447	0.372408	0.915491
ENSMUSGDC148	389.0526	0.099303	0.405495	0.816132	ENSMUSGDC148	364.3697	0.000009	0.7925	0.9781
ENSMUSGDC149	0.503508	0.060616	0.564532	0.880434	ENSMUSGDC149	573.846	0.03047	0.784102	0.970154
ENSMUSGDC150	814.113	0.063234	0.2547	0.880279	ENSMUSGDC150	71.813	0.000001	0.784102	0.970154
ENSMUSGDC151	328.124	0.093234	0.2547	0.880279	ENSMUSGDC151	71.813	0.000001	0.784102	0.970154
ENSMUSGDC152	117.051	0.124082	0.161232	0.944466	ENSMUSGDC152	778.997	0.038476	0.76356	0.974
ENSMUSGDC153	217.974	0.124082	0.161232	0.944466	ENSMUSGDC153	194.198	0.03862	0.544461	0.938063
ENSMUSGDC154	8276.755	-0.11812	0.000000	0.825312	ENSMUSGDC154	9672.611	-0.04506	0.58978	0.978
ENSMUSGDC155	997.000	0.108494	0.070287	0.40008	ENSMUSGDC155	997.000	0.108494	0.070287	0.40008
ENSMUSGDC156	787.2984	0.28864	0.38682	0.296095	ENSMUSGDC156	787.2984	0.28864	0.38682	0.296095
ENSMUSGDC157	238.0076	0.000096	0.993838	0.399943	ENSMUSGDC157	238.0076	0.000096	0.993838	0.399943
ENSMUSGDC158	69.7588	-0.13091	0.41454	0.819651	ENSMUSGDC158	69.7588	-0.13091	0.41454	0.819651
ENSMUSGDC159	46.699	0.000000	0.993838	0.399943	ENSMUSGDC159	46.699	0.000000	0.993838	0.399943
ENSMUSGDC160	418.069	0.000096	0.993838	0.399943	ENSMUSGDC160	418.069	0.000096	0.993838	0.399943
ENSMUSGDC161	399.09	-0.23237	0.01244	0.195046	ENSMUSGDC161	399.09	-0.23237	0.01244	0.195046
ENSMUSGDC162	109.094	-0.000096	0.993838	0.399943	ENSMUSGDC162	109.094	-0.000096	0.993838	0.399943
ENSMUSGDC163	63.0737	0.000000	0.993838	0.399943	ENSMUSGDC163	63.0737	0.000000	0.993838	0.399943
ENSMUSGDC164	1263.005	0.138201	0.01151	0.576105	ENSMUSGDC164	1263.005	0.138201	0.01151	0.576105
ENSMUSGDC165	246.824	0.000000	0.993838	0.399943	ENSMUSGDC165	246.824	0.000000	0.993838	0.399943
ENSMUSGDC166	10.79463	-0.58629	0.03529	0.912145	ENSMUSGDC166	10.79463	-0.58629	0.03529	0.912145
ENSMUSGDC167	215.727	0.000000	0.993838	0.399943	ENSMUSGDC167	215.727	0.000000	0.993838	0.399943
ENSMUSGDC168	95.6988	0.000000	0.993838	0.399943	ENSMUSGDC168	95.6988	0.000000	0.993838	0.399943
ENSMUSGDC169	879.6201	0.058273	0.860517	0.918224	ENSMUSGDC169	879.6201	0.058273	0.860517	0.918224
ENSMUSGDC170	138.067	-0.06154	0.33502	0.829093	ENSMUSGDC170	138.067	-0.06154	0.33502	0.829093
ENSMUSGDC171	188.778	0.000000	0.993838	0.399943	ENSMUSGDC171	188.778	0.000000	0.993838	0.399943
ENSMUSGDC172	46.784	0.20541	0.47961	0.801757	ENSMUSGDC172	46.784	0.20541	0.47961	0.801757
ENSMUSGDC173	66.1139	0.00243	0.14742	0.964668	ENSMUSGDC173	66.1139	0.00243	0.14742	0.964668
ENSMUSGDC174	156.829	0.14217	0.84856	0.573195	ENSMUSGDC174	156.829	0.14217	0.84856	0.573195
ENSMUSGDC175	814.113	0.063234	0.2547	0.880279	ENSMUSGDC175	814.113	0.063234	0.2547	0.880279
ENSMUSGDC176	484.1	0.03867	0.312951	0.940866	ENSMUSGDC176	484.1	0.03867	0.312951	0.940866
ENSMUSGDC177	244.4159	0.138563	0.75295	0.784977	ENSMUSGDC177	244.4159	0.138563	0.75295	0.784977
ENSMUSGDC178	3719.629	0.000096	0.993838	0.3999					



NSMSGSM 469.076	0.040258	0.767024	0.593493	Dha37
NSMSGSM 113.456	0.152498	0.121442	0.955939	Dha1
NSMSGSM 883.941	0.07195	0.47776	0.852702	Dha4
NSMSGSM 1.187	0.12803	0.15003	0.954689	Dha5
NSMSGSM 73.0209	0.115845	0.04179	0.916828	Dha6
NSMSGSM 967.4259	0.120316	0.01585	0.927417	Dha8
NSMSGSM 364.984	0.149219	0.102244	0.842871	Dha9
NSMSGSM 267.655	0.12803	0.17673	0.954949	Dha10
NSMSGSM 4.090	0.043134	0.06182	0.93929	Dha11
NSMSGSM 620.018	0.01862	0.087894	0.98438	Dha12
NSMSGSM 158.015	-0.00262	0.98944	0.991911	Dha13
NSMSGSM 1836.152	0.00417	0.94553	0.991911	Dha14
NSMSGSM 1674.455	-0.14774	0.16166	0.959127	Dha15
NSMSGSM 320.662	0.197029	0.21358	0.9749	Dha16
NSMSGSM 2236.822	0.225519	0.101072	0.9501	Dha17
NSMSGSM 68.8013	0.267434	0.305858	0.975544	Dha18
NSMSGSM 1.77885	-0.155027	0.98982	0.98982	Dha19
NSMSGSM 3516.51	0.006619	0.97999	0.98513	Dha20
NSMSGSM 2291.496	0.117245	0.190425	0.98285	Dha21
NSMSGSM 2271.366	0.096408	0.276743	0.926926	Dha22
NSMSGSM 107.8848	0.13275	0.05425	0.905851	Dha23
NSMSGSM 1360.217	-0.299	0.010974	0.962431	Dha24
NSMSGSM 444.9432	-0.03451	0.812619	0.91426	Dha25
NSMSGSM 919.5794	-0.41654	0.02148	0.92738	Dha26
NSMSGSM 9.36425	-0.1328	0.05425	0.905851	Dha27
NSMSGSM 374.722	0.129341	0.181171	0.88884	Dha28
NSMSGSM 8783.229	0.015663	0.842283	0.911917	Dha29
NSMSGSM 507.1463	-0.06738	0.981893	0.892551	Dha30
NSMSGSM 1075.47	-0.150203	0.98982	0.98982	Dha31
NSMSGSM 526.8129	0.053231	0.65643	0.932929	Dha32
NSMSGSM 65.99485	0.03421	0.219186	0.66655	Dha33
NSMSGSM 270.0067	-0.15998	0.346175	0.87153	Dha34
NSMSGSM 9787.201	-0.2689	0.98982	0.98982	Dha35
NSMSGSM 503.771	0.1179	0.405762	0.81665	Dha36
NSMSGSM 2551.503	-0.13065	0.151201	0.57198	Dha37
NSMSGSM 571.1587	0.127798	0.3716	0.64086	Dha38
NSMSGSM 107.8848	-0.13116	0.05425	0.905851	Dha39
NSMSGSM 1163.977	-0.25124	0.045502	0.92759	Dha40
NSMSGSM 66.00332	-0.169	0.180322	0.53295	Dha41
NSMSGSM 2296.448	0.090732	0.295113	0.94788	Dha42
NSMSGSM 272.956	0.054835	0.524203	0.884848	Dha43
NSMSGSM 18.12	0.054835	0.524203	0.884848	Dha44
NSMSGSM 91.87679	0.113597	0.607934	0.90063	Dha45
NSMSGSM 254.908	0.07413	0.30206	0.90555	Dha46
NSMSGSM 97.18024	0.130756	0.576285	0.891554	Dha47
NSMSGSM 1.179	0.06182	0.06182	0.93929	Dha48
NSMSGSM 2291.318	0.11194	0.303488	0.975254	Dha49
NSMSGSM 3364.999	0.13458	0.245208	0.70338	Dha50
NSMSGSM 57368.56	0.113481	0.14184	0.54747	Dha51
NSMSGSM 9993.803	-0.12148	0.05425	0.905851	Dha52
NSMSGSM 16001.04	0.083369	0.309639	0.76558	Dha53
NSMSGSM 2159.651	0.102796	0.245489	0.691313	Dha54
NSMSGSM 24640.41	0.236789	0.04504	0.089691	Dha55
NSMSGSM 12354.14	0.041658	0.041658	0.905851	Dha56
NSMSGSM 14.487	-0.09028	0.866551	Na	Dha565
NSMSGSM 295.362	-0.04269	0.831607	0.98982	Dha57
NSMSGSM 946.2704	0.039399	0.561105	0.709333	Dha58
NSMSGSM 167.3622	-0.13127	0.05425	0.905851	Dha59
NSMSGSM 77.42484	-0.30815	0.204263	0.279679	Dha60
NSMSGSM 133.525	0.25996	0.328178	0.91078	Dha61
NSMSGSM 4100.217	0.089049	0.248849	0.743674	Dha62
NSMSGSM 68.0026	-0.1416	0.05425	0.905851	Dha63
NSMSGSM 444.532	0.0			

NUMSUS17	167.104	0.003152	0.978398	0.996459	Dicer1
NUMSUS18	165.108	0.087466	0.533768	0.954820	Dicer1
NUMSUS19	310.328	0.059665	0.797972	0.61023	Dmrt1
NUMSUS20	178.032	0.000000	0.547655	0.780823	Dmrt1
NUMSUS21	177.9984	0.325967	0.932471	0.99306	Dmrt1
NUMSUS22	150.1952	0.343646	0.478801	0.932339	Dmrt3a
NUMSUS23	313.251	0.060034	0.548232	0.938064	Dmrt3b
NUMSUS24	205.9430	0.071795	0.407087	0.826624	Dmrt3b
NUMSUS25	198.214	0.025443	0.460879	0.861879	Dmrt3b
NUMSUS26	76.5	0.071191	0.819596	0.929259	Dmrt3b
NUMSUS27	135.543	0.021166	0.874636	0.989644	Dmrt3b
NUMSUS28	46.6529	0.003176	0.812855	0.866562	Dmrt3b
NUMSUS29	153.0587	0.145801	0.498939	0.824857	Dmrt3b
NUMSUS30	37.54714	0.569355	0.26036	0.845424	Dmrt3b
NUMSUS31	314.346	0.1106	0.913906	0.963543	Dmrt3b
NUMSUS32	7457	0.13584	0.880952	0.72004	Dmrt3b
NUMSUS33	156.5347	0.021349	0.476564	0.859139	Dmrt3b
NUMSUS34	909.2913	0.1062	0.62111	0.95919	Dmrt3b
NUMSUS35	469.7048	0.06666	0.961824	0.993527	Dmrt3b
NUMSUS36	57.27811	0.181413	0.524752	0.93967	Dmrt3b
NUMSUS37	173.336	0.123853	0.654716	0.85668	Dmrt3b
NUMSUS38	103.678	0.173875	0.23234	0.868507	Dmrt3b
NUMSUS39	140.9216	0.228989	0.859057	0.98588	Dmrt3b
NUMSUS40	253.0235	0.919323	0.479103	0.922202	Dmrt3b
NUMSUS41	530.305	0.021349	0.476564	0.859139	Dmrt3b
NUMSUS42	25.1306	0.691451	0.116688	0.813384	Dmrt3b
NUMSUS43	114.5568	0.145498	0.483894	0.925289	Dmrt3b
NUMSUS44	115.6146	0.090407	0.493182	0.98385	Dmrt3b
NUMSUS45	123.64	0.003176	0.812855	0.866562	Dmrt3b
NUMSUS46	201.847	0.02012	0.853236	0.98555	Dmrt3b
NUMSUS47	242.518	0.067655	0.887723	0.94978	Dmrt3b
NUMSUS48	85.08099	0.175079	0.471599	0.932329	Dmrt3b
NUMSUS49	247.4332	0.003176	0.812855	0.866562	Dmrt3b
NUMSUS50	148.0214	0.061440	0.820375	0.91088	Dmrt3b
NUMSUS51	63.60156	0.09935	0.360118	0.91243	Dmrt3b
NUMSUS52	195.475	0.070863	0.661921	0.941665	Dmrt3b
NUMSUS53	287.94	0.003176	0.812855	0.866562	Dmrt3b
NUMSUS54	50.01608	0.00272	0.767577	0.966416	Dmrt3b
NUMSUS55	252.7139	0.061440	0.767658	0.942912	Dmrt3b
NUMSUS56	148.7213	0.18327	0.201592	0.84641	Dmrt3b
NUMSUS57	17.8431	0.13052	0.805958	0.7168	Dmrt3b
NUMSUS58	17.8431	0.13052	0.805958	0.7168	Dmrt3b
NUMSUS59	116.745	0.104203	0.281159	0.882356	Dmrt3b
NUMSUS60	12.81592	0.12776	0.829487	0.88022	Dmrt3b
NUMSUS61	296.3605	0.312354	0.33732	0.978779	Dmrt3b
NUMSUS62	187.1386	0.01029	0.634316	0.91088	Dmrt3b
NUMSUS63	191.8724	0.22446	0.91925	0.90199	Dmrt3b
NUMSUS64	79.44403	0.062006	0.589221	0.971918	Dmrt3b
NUMSUS65	117.8352	0.198739	0.339843	0.97232	Dmrt3b
NUMSUS66	247.421	0.003176	0.812855	0.866562	Dmrt3b
NUMSUS67	67.453	0.189525	0.309027	0.88538	Dmrt3b
NUMSUS68	381.8065	0.003176	0.812855	0.866562	Dmrt3b
NUMSUS69	180.5457	0.02382	0.730369	0.981261	Dmrt3b
NUMSUS70	125.7059	0.070863	0.661921	0.941665	Dmrt3b
NUMSUS71	124.6198	0.137799	0.644418	0.953903	Dmrt3b
NUMSUS72	279.6242	0.058919	0.718322		

[illegible]

Cd0c1	11455.98	0.100498	0.483894	0.925289
Cd0c2	61518.46	-0.09407	0.491382	0.926825
Cd0c3	2364.661	-0.12855	0.280185	0.849375
Cd0c4	2015.847	-0.00000	0.281252	0.853221
Cd0c5	1427.518	-0.06795	0.588723	0.934256
Cd0c6	85.0869	0.175079	0.471597	0.842000
Cd0c7	247.1432	0.251171	0.193949	0.830678
Cd0c8	83.40214	-0.0540	0.483925	0.931958
Cd0c9	6360.516	-0.09935	0.360318	0.931343
Cd0c10	195475	0.070863	0.566191	0.916465
Cd0c11	2879.943	-0.04415	0.733505	0.905465
Cd0c12	50168.08	-0.00272	0.767975	0.956416
Cd0c13	1527.179	0.06478	0.291292	0.849492
Cd0c14	18427.31	0.13057	0.205952	0.864412
Cd0c15	1787.321	-0.18327	0.001988	0.767881
Cd0c16	22562.84	0.175256	0.142921	0.831221
Cd0c17	1167.45	0.04203	0.291292	0.849492
Cd0c18	12.81592	-0.12767	0.829487	0.980224
Cd0c19	296.306	0.213354	0.33732	0.907972
Cd0c20	837.1084	-0.01017	0.954316	0.93906
Cd0c21	10.1874	0.42146	0.291292	0.849492
Cd0c22	79.44403	0.086796	0.819821	0.979198
Cd0c23	117.8352	0.198239	0.538293	0.937216
Cd0c24	345.805	-0.19377	0.189527	0.857355
Cd0c25	3761.453	0.18925	0.360318	0.931343
Cd0c26	1807.5457	-0.08012	0.616662	0.943137
Cd0c27	180.5457	0.221708	0.370369	0.915491
Cd0c28	105.7695	0.1827	0.523715	0.932848
Cd0c29	243.4398	0.137749	0.381743	0.931958
Cd0c30	279.6242	0.058189	0.148832	0.966668
Cd0c31	453.1253	-0.10853	0.442409	0.917527
Cd0c32	96.7937	0.070863	0.541956	0.940388
Cd0c33	362.2255	-0.137749	0.381743	0.931958
Cd0c34	4849.3295	0.11194	0.048235	0.923239
Cd0c35	287.365	0.05292	0.19636	0.862161
Cd0c36	2115.906	0.05369	0.609746	0.950397
Cd0c37	18.39415	0.63845	0.291292	0.849492
Cd0c38	20.45418	-0.06536	0.262512	0.979795
Cd0c39	673.0371	-0.05988	0.675461	0.95654
Cd0c40	113.072	0.095521	0.500676	0.927825
Cd0c41	20.92579	0.26392	0.547077	0.938699
Cd0c42	13.0653	0.149093	0.291292	0.849492
Cd0c43	14.38882	-0.31102	0.075205	0.942369
Cd0c44	180.5299	0.31363	0.100904	0.801456
Cd0c45	51.91495	-0.04239	0.884149	0.988644
Cd0c46	68.2952	-0.01017	0.954316	0.93906
Cd0c47	1305.787	0.04832	0.706856	0.952629
Cd0c48	7041.716	-0.0115	0.911831	0.922196
Cd0c49	4023.452	-0.01383	0.903593	0.91089
Cd0c50	136.368	0.01681	0.360318	0.931343
Cd0c51	3398.057	0.176357	0.050195	0.837086
Cd0c52	52.35737	0.44971	0.15642	0.84011
Cd0c53	13.33073	0.194996	0.745816	0.90951
Cd0c54	10.6231	0.248636	0.563131	0.942369
Cd0c55	13.07341	-0.07524	0.926285	0.980224
Cd0c56	28.53502	0.18478	0.731791	0.967288
Cd0c57	41.50478	0.15811	0.747093	0.970806
Cd0c58	30.84798	0.23147	0.563131	0.942369
Cd0c59	25.11328	0.010748	0.946531	0.994798
Cd0c60	6449.305	-0.23818	0.033603	0.679171
Cd0c61	259.2871	-0.21264	0.195854	0.861682
Cd0c62	10.71395	0.04832	0.706856	0.952629
Cd0c63	58.09731	0.070535	0.283613	0.980224
Cd0c64				



ENSMUSGC 1055.838 -0.02884 0.783186 0.957558 DnaI4  
ENSMUSGC 45.26098 -0.2865 0.36547 0.794085 DnaII  
ENSMUSGC 46.89097 -0.03576 0.89034 0.981687 Dnael11  
ENSMUSGC 177.9163 0.261358 0.131899 0.544244 Dnael12  
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ENSMUSGC 3162.655 0.037936 0.630612 0.914073 Dnm2  
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ENSMUSGC 499.789 0.067124 0.63686 0.939304 Dncc4  
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ENSMUSGC 3767.589 0.148572 0.335335 0.907907 Dncc6  
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ENSMUSGC 722.2399 0.244423 0.08778 0.75783 Dncc7  
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ENSMUSGC 712.8212 0.10147 0.459687 0.829501 Dncc1  
ENSM



ENSMUSG	1715.822	0.086732	0.624479	0.91187	DynC11
ENSMUSG	423.196	0.184417	0.185842	0.01825	DynC12
ENSMUSG	1542.123	0.070929	0.578647	0.68869	DynC13
ENSMUSG	1262.059	0.042348	0.151258	0.00000	DynC14
ENSMUSG	771.4431	0.1054	0.1031	0.78381	DynC15
ENSMUSG	563.182	0.0282	0.007835	0.96129	DynC16
ENSMUSG	115.578	0.148821	0.15321	0.98998	DynC17
ENSMUSG	424.568	0.051528	0.051528	0.00000	DynC18
ENSMUSG	1490.403	0.073235	0.506889	0.86783	DynC19
ENSMUSG	24527.18	0.025256	0.154543	0.87055	DynC20
ENSMUSG	3786.652	0.0053	0.083864	0.98262	DynC1
ENSMUSG	140.0254	0.015128	0.015128	0.00000	DynC2
ENSMUSG	147.8984	0.054271	0.736033	0.94041	DynC3
ENSMUSG	39.48097	0.47293	0.142312	0.95959	DynC4
ENSMUSG	27.56916	0.128786	0.757237	0.95515	DynC1c
ENSMUSG	69.03915	0.16861	0.056565	0.96229	DynC1f
ENSMUSG	342.408	0.135175	0.135175	0.00000	DynC5
ENSMUSG	3527.586	0.085516	0.530893	0.88649	DynC6
ENSMUSG	11.22475	0.01837	0.28398	0.914	DynC7
ENSMUSG	8.96048	0.143356	0.753592	0.914	DynC8
ENSMUSG	102.024	0.024	0.114	0.98788	DynC9
ENSMUSG	675.5893	0.02759	0.97588	0.96002	DynC10
ENSMUSG	1144.567	0.009223	0.235005	0.91229	DynC2
ENSMUSG	148.53	0.1487	0.74394	0.84758	DynC11
ENSMUSG	11.33562	0.05657	0.05657	0.00000	DynC12
ENSMUSG	142.4436	0.150551	0.441507	0.92038	DynC
ENSMUSG	5100.419	0.073211	0.352115	0.78378	DanK1
ENSMUSG	433.229	0.013877	0.013877	0.00000	DynC13
ENSMUSG	69.6422	0.02887	0.02887	0.00000	DynC14
ENSMUSG	134.753	0.04727	0.61516	0.91862	DynC15
ENSMUSG	36.2795	0.23015	0.46296	0.80281	D30031J19k9k
ENSMUSG	33.74952	0.11353	0.07242	0.94751	D30030K04k9k
ENSMUSG	10.02348	0.25135	0.25135	0.00000	D30030P7k9k
ENSMUSG	65.81485	0.076513	0.72146	0.95768	D30031J20k24k9k
ENSMUSG	9.86894	0.03109	0.87163	0.914	D30030H2k9k
ENSMUSG	43.00407	0.29291	0.303458	0.73541	D30031J20k24k9k
ENSMUSG	10.02348	0.25135	0.25135	0.00000	D30030P7k9k
ENSMUSG	47.89404	0.09567	0.44373	0.83117	D30030J18k9k
ENSMUSG	310.6902	0.34409	0.16243	0.89120	D30031J13k9k
ENSMUSG	92.13965	0.09528	0.67289	0.92007	D30031J720k9k
ENSMUSG	9.468881	0.26124	0.682483	0.914	D30031S070k9k
ENSMUSG	10.02348	0.25135	0.25135	0.00000	D30030P7k9k
ENSMUSG	103.0623	0.04575	0.82545	0.96787	D30030C5k9k
ENSMUSG	610.5737	0.07792	0.482964	0.96216	E21
ENSMUSG	61.82077	0.01669	0.950737	0.93021	E22
ENSMUSG	177.7729	0.02088	0.02088	0.00000	E23
ENSMUSG	86.1207	0.010926	0.355992	0.788009	E24
ENSMUSG	520.395	0.03042	0.78932	0.99239	E25
ENSMUSG	165.851	0.118489	0.92683	0.71316	E26
ENSMUSG	16.678	0.05657	0.05657	0.00000	E27
ENSMUSG	31.87104	0.43956	0.23704	0.68484	E28
ENSMUSG	12.01558	0.155996	0.7941	0.914	E3001J0218k9k
ENSMUSG	29.5339	0.06101	0.87721	0.98255	E3001J304k9k
ENSMUSG	60.569	0.02887	0.02887	0.00000	E3001J304k9k
ENSMUSG	602.5369	0.07736	0.03253	0.96129	E3001J304k9k
ENSMUSG	34.5934	0.10536	0.45747	0.92328	E3001J304k9k
ENSMUSG					

ENSGM87	3048.417	-0.40001	0.001061	0.112188	Dynlrb1
ENSGM87	3434.751	0.126391	0.000001	0.042402	Dynlrb2
ENSGM87	144.633	-0.503191	0.000001	0.042402	Dynlrb2
ENSGM87	134.813	0.068191	0.081814	0.074236	Dynlrb1a
ENSGM87	17.423	-0.503191	0.000001	0.042402	Dynlrb2
ENSGM87	27.423	0.356456	0.387868	0.017202	Dynlrb1
ENSGM87	65.405	0.220429	0.348885	0.017202	Dynlrb1
ENSGM87	148.1042	0.066037	0.047014	0.06951	Dynlrb2b
ENSGM87	3001.468	0.000001	0.000001	0.000001	Dynlrb2b
ENSGM87	18.87791	0.106183	0.000001	0.063034	Dynlrb2
ENSGM87	1783.634	0.0191971	0.860094	0.02862	Dyrlk1a
ENSGM87	612.494	-0.03812	0.764142	0.094	Dyrlk1b
ENSGM87	1074.76	0.000001	0.000001	0.000001	Dyrlk1b
ENSGM87	125.4183	-0.39721	0.109048	0.084509	Dyrlk1b
ENSGM87	112.2962	0.082723	0.881956	NuA	Dyrlk4
ENSGM87	129.0016	0.157687	0.478239	0.032339	Dyrlk4
ENSGM87	443.2624	-0.08251	0.261593	0.037434	Danzk1
ENSGM87	1687.451	0.000001	0.000001	0.000001	Danzk1
ENSGM87	743.2634	0.290781	0.886292	0.70664	Dpnl1
ENSGM87	126.0423	0.028624	0.799217	0.07681	Dpnl1
ENSGM87	34.1804	-0.14882	0.368765	0.02605	ED30031398k
ENSGM87	12.1804	-0.211888	0.000001	0.000001	ED30031398k
ENSGM87	75.228	0.020904	0.059322	0.049748	ED3100080708k
ENSGM87	69.05734	0.475174	0.116436	0.3184	ED3100120248k
ENSGM87	39.3836	-0.27566	0.387655	0.017257	ED310159248k
ENSGM87	12.1804	0.000001	0.000001	0.000001	ED310159248k
ENSGM87	443.1813	-0.04858	0.379627	0.000001	ED3103084198k
ENSGM87	31.21043	0.037971	0.818863	0.795198	ED31013138k
ENSGM87	49.0304	0.025689	0.111199	0.019626	ED31017208k
ENSGM87	12.1804	0.000001	0.000001	0.000001	ED31017208k
ENSGM87	99.3023	0.13426	0.64652	0.017257	ED3200290508k
ENSGM87	59.52551	0.103131	0.268852	0.017257	ED321
ENSGM87	18.0081	0.155156	0.564607	0.041026	ED321
ENSGM87	736.6121	0.045474	0.000001	0.000001	ED321
ENSGM87	751.8581	0.013247	0.084248	0.99306	ED321
ENSGM87	489.0408	-0.12776	0.048403	0.022622	ED321
ENSGM87	139.287	-0.04353	0.377656	0.06786	ED321
ENSGM87	105.1384	0.243167	0.000001	0.000001	ED321
ENSGM87	81.8564	-0.10399	0.717217	0.07681	ED321
ENSGM87	15.9271	-0.26812	0.882957	NuA	ED3300110218k
ENSGM87	22.25074	0.07025	0.120506	0.033438	ED3300130408k
ENSGM87	82.0005	0.07029	0.045625	0.053963	ED331
ENSGM87	166.0643	0.036474	0.000001	0.000001	ED331
ENSGM87	32.71866	-0.19031	0.066406	0.95553	ED331
ENSGM87	120.8036	0.01119	0.116679	0.017257	Eap2
ENSGM87	19.3364	-0.57809	0.022228	0.277034	Eap2
ENSGM87	132.508	0.000001	0.000001	0.000001	Eap2
ENSGM87	65.6948	0.241689	0.069624	0.73163	Ebag3
ENSGM87	112.7403	0.573175	0.083514	0.585577	Ebf1
ENSGM87	103.1037	-0.14856	0.80355	NuA	Ebf2
ENSGM87	75.2945	0.33367	0.000001	0.000001	Ebf2
ENSGM87	384.6592	0.28895	0.049622	0.000001	Ebf4
ENSGM87	56.4774	0.20264	0.584212	0.023329	Ebf4
ENSGM87	85.7975	-0.0551	0.674672	0.95684	Ebnalbp2
ENSGM87	131.6528	0.000001	0.000001	0.	

ENSMUSGE21303172	92.13965	-0.09528	0.28785	0.07591
ENSMUSGE21303168	109.4871	0.18555	0.05593	0.27091
ENSMUSGE21303090	101.0623	-0.04375	0.08249	0.04949
ENSMUSGE221	53.8231	0.00023	0.07833	0.43864
ENSMUSGE22	102.8277	-0.01669	0.05957	0.07241
ENSMUSGE23	777.7729	-0.02082	0.83725	0.755
ENSMUSGE24	861.2017	0.109926	0.35599	0.242
ENSMUSGE25	52.8231	0.00023	0.07833	0.43864
ENSMUSGE26	1605.831	0.100189	0.28263	0.263
ENSMUSGE27	16.6978	0.27828	0.38839	0.96
ENSMUSGE28	31.87104	-0.4956	0.20328	0.20328
ENSMUSGE21303101	53.8231	0.00023	0.07833	0.43864
ENSMUSGE21303190	29.53039	-0.01061	0.87722	0.01061
ENSMUSGEca1	961.753	0.23839	0.08395	0.08395
ENSMUSGEca1	602.5369	-0.02736	0.80389	0.02736
ENSMUSGEca2	34.354	-0.30756	0.44574	0.44574
ENSMUSGEca3	14.361	0.15122	0.22328	0.22328
ENSMUSGEca2	22.4047	-0.1251	0.20616	0.20616
ENSMUSGEca2	151.3502	0.18242	0.49324	0.49324
ENSMUSGEca8	604.5859	-0.20203	0.027706	0.027706
ENSMUSGEca1	88.247	0.00023	0.07833	0.43864
ENSMUSGEcb2	12.05612	0.01398	0.90491	0.90491
ENSMUSGEcb3	30.31615	-0.09108	0.78917	0.78917
ENSMUSGEcb4	401.5218	0.156386	0.206	0.206
ENSMUSGEcb3	57.1282	0.00023	0.07833	0.43864
ENSMUSGEcbalp2b	986.353	0.09369	0.370931	0.370931
ENSMUSGEcbp	803.774	-0.38325	0.00000	0.00000
ENSMUSGEcbpl	504.4377	-0.0381	0.31522	0.31522
ENSMUSGEcd	93.8	0.00023	0.07833	0.43864
ENSMUSGEcd	2596.886	-0.27957	0.0581	0.0581
ENSMUSGEcd2	93.90901	0.21838	0.01417	0.01417
ENSMUSGEcd1	250.2152	-0.1604	0.00000	0.00000
ENSMUSGEcd1	183.2	0.00023	0.07833	0.43864
ENSMUSGEcd2	1952.559	-0.76421	0.41225	0.41225
ENSMUSGEcdh2c	481.4651	-0.08835	0.62237	0.62237
ENSMUSGEcdh2c	82.34866	-0.24672	0.03333	0.03333
ENSMUSGEcdh1	267.8231	0.00023	0.07833	0.43864
ENSMUSGEcd1	1253.471	0.138175	0.175	0.175
ENSMUSGEcd2	1918.707	0.06673	0.55444	0.55444
ENSMUSGEcm1	324.977	-0.11202	0.04670	0.04670
ENSMUSGEcm2	154.1515	-0.33341	0.11809	0.11809
ENSMUSGEcpw	282.1	0.00023	0.07833	0.43864
ENSMUSGEcgr	302.0217	-0.34243	0.0451	0.0451
ENSMUSGEcgr	186.0318	0.01787	0.08217	0.08217
ENSMUSGEcst	1145.28	0.12231	0.71996	0.71996
ENSMUSGEc2	281.8231	0.00023	0.07833	0.43864
ENSMUSGEc2	12.41904	-0.08829	0.97977	0.97977
ENSMUSGEcd4	294.7544	-0.176	0.376250	0.376250
ENSMUSGEcd4	11.4871	-0.3896	0.51053	0.51053
ENSMUSGEcd4	16.1	0.00023	0.07833	0.43864
ENSMUSGEcd4	463.591	0.09946	0.40350	0.40350
ENSMUSGEcd4	1804.72	0.271576	0.01047	0.01047
ENSMUSGEcdem1	686.6884	-0.04464	0.34209	0.34209
ENSMUSGEcdem2	698.2	0.00023	0.07833	0.43864
ENSMUSGEcdem1	1591.36	-0.27378	0.00355	0.00355
ENSMUSGEcd1	3401.134	-0.00001	0.59855	0.59855
ENSMUSGEcd1	209.157	-0.55531	0.00100	0.00100
ENSMUSGEcd1	813.69	0.00023	0.07833	0.43864
ENSMUSGEcd3	182.587	-0.08146	0.69785	0.69785
ENSMUSGEcdmra	302.3017	0.34576	0.09546	0.09546
ENSMUSGEcdmb	4234.6	-0.11992	0.71424	0.71424
ENSMUSGEcd1	57.1282	0.00023	0.07833	0.43864
ENSMUSGEcd1	1417.809	-0.21558	0.08581	0.08581
ENSMUSGEcd	337.661	-0.13757	0.03401	0.03401
ENSMUSGEcf1	90916.3			

3584	NSMUS-ESX1E03167	87	20.0280	0.5589	0.9133	0.992196
3585	NSMUS-ESX1E03168	69	8.6308	0.1597	0.60283	0.94789
3586	NSMUS-ESX2E03200	99	35.0023	0.13426	0.566852	0.94177
3587	NSMUS-ESX2E03201	99	35.0023	0.13426	0.566852	0.94177
3588	NSMUS-ESX2E03202	99	35.0023	0.13426	0.566852	0.94177
3589	NSMUS-ESX2E03203	99	35.0023	0.13426	0.566852	0.94177
3590	NSMUS-ESX2E03204	99	35.0023	0.13426	0.566852	0.94177
3591	NSMUS-ESX2E03205	99	35.0023	0.13426	0.566852	0.94177
3592	NSMUS-ESX2E03206	99	35.0023	0.13426	0.566852	0.94177
3593	NSMUS-ESX2E03207	99	35.0023	0.13426	0.566852	0.94177
3594	NSMUS-ESX2E03208	99	35.0023	0.13426	0.566852	0.94177
3595	NSMUS-ESX2E03209	99	35.0023	0.13426	0.566852	0.94177
3596	NSMUS-ESX2E03210	99	35.0023	0.13426	0.566852	0.94177
3597	NSMUS-ESX2E03211	99	35.0023	0.13426	0.566852	0.94177
3598	NSMUS-ESX2E03212	99	35.0023	0.13426	0.566852	0.94177
3599	NSMUS-ESX2E03213	99	35.0023	0.13426	0.566852	0.94177
3600	NSMUS-ESX2E03214	99	35.0023	0.13426	0.566852	0.94177
3601	NSMUS-ESX2E03215	99	35.0023	0.13426	0.566852	0.94177
3602	NSMUS-ESX2E03216	99	35.0023	0.13426	0.566852	0.94177
3603	NSMUS-ESX2E03217	99	35.0023	0.13426	0.566852	0.94177
3604	NSMUS-ESX2E03218	99	35.0023	0.13426	0.566852	0.94177
3605	NSMUS-ESX2E03219	99	35.0023	0.13426	0.566852	0.94177
3606	NSMUS-ESX2E03220	99	35.0023	0.13426	0.566852	0.94177
3607	NSMUS-ESX2E03221	99	35.0023	0.13426	0.566852	0.94177
3608	NSMUS-ESX2E03222	99	35.0023	0.13426	0.566852	0.94177
3609	NSMUS-ESX2E03223	99	35.0023	0.13426	0.566852	0.94177
3610	NSMUS-ESX2E03224	99	35.0023	0.13426	0.566852	0.94177
3611	NSMUS-ESX2E03225	99	35.0023	0.13426	0.566852	0.94177
3612	NSMUS-ESX2E03226	99	35.0023	0.13426	0.566852	0.94177
3613	NSMUS-ESX2E03227	99	35.0023	0.13426	0.566852	0.94177
3614	NSMUS-ESX2E03228	99	35.0023	0.13426	0.566852	0.94177
3615	NSMUS-ESX2E03229	99	35.0023	0.13426	0.566852	0.94177
3616	NSMUS-ESX2E03230	99	35.0023	0.13426	0.566852	0.94177
3617	NSMUS-ESX2E03231	99	35.0023	0.13426	0.566852	0.94177
3618	NSMUS-ESX2E03232	99	35.0023	0.13426	0.566852	0.94177
3619	NSMUS-ESX2E03233	99	35.0023	0.13426	0.566852	0.94177
3620	NSMUS-ESX2E03234	99	35.0023	0.13426	0.566852	0.94177
3621	NSMUS-ESX2E03235	99	35.0023	0.13426	0.566852	0.94177
3622	NSMUS-ESX2E03236	99	35.0023	0.13426	0.566852	0.94177
3623	NSMUS-ESX2E03237	99	35.0023	0.13426	0.566852	0.94177
3624	NSMUS-ESX2E03238	99	35.0023	0.13426	0.566852	0.94177
3625	NSMUS-ESX2E03239	99	35.0023	0.13426	0.566852	0.94177
3626	NSMUS-ESX2E03240	99	35.0023	0.13426	0.566852	0.94177
3627	NSMUS-ESX2E03241	99	35.0023	0.13426	0.566852	0.94177
3628	NSMUS-ESX2E03242	99	35.0023	0.13426	0.566852	0.94177
3629	NSMUS-ESX2E03243	99	35.0023	0.13426	0.566852	0.94177
3630	NSMUS-ESX2E03244	99	35.0023	0.13426	0.566852	0.94177
3631						







ENSMUSGC 356.5083 -0.03682 0.772258 0.955886 Engase  
ENSMUSGC 4293.337 -0.005893 0.489103 0.862973 Enho1  
ENSMUSGC 212.8325 -0.1274 0.946484 0.914073 Enho41  
ENSMUSGC 51.63002 -0.36889 0.190058 0.628259 Enkur  
ENSMUSGC 19841.91 -0.017524 0.841236 0.971719 Eno1  
ENSMUSGC 1377.15 0.051482 0.71466 0.941344 Eno2  
ENSMUSGC 343.9003 -0.01247 0.212129 0.672203 Eno3  
ENSMUSGC 73.13649 -0.00103 0.956622 0.99943 Eno4  
ENSMUSGC 1105.322 0.082434 0.414216 0.819998 Enoph1  
ENSMUSGC 323.7554 -0.12401 0.250591 0.704003 Enox1  
ENSMUSGC 260.5331 -0.00000 0.432055 0.947453 Enox2  
ENSMUSGC 86.54557 -0.24253 0.387953 0.805833 Enop9  
ENSMUSGC 184.1619 -0.22363 0.19611 0.635558 Enop1  
ENSMUSGC 10438.94 -0.26344 0.148048 0.571232 Enop2  
ENSMUSGC 18.24244 -0.35097 0.419955 Nn1 Enop3  
ENSMUSGC 812.1156 -0.45203 0.013988 0.177288 Enop4  
ENSMUSGC 7708.671 -0.44667 0.00026 0.011310 Enop5  
ENSMUSGC 676.4794 -0.81072 2.27E-05 0.007231 Enop6  
ENSMUSGC 8074.309 0.095678 0.258499 0.700225 Enp1  
ENSMUSGC 697.5907 0.07517 0.068021 0.907377 Enpd1  
ENSMUSGC 505.1787 -0.23139 0.185396 0.621385 Enpd2  
ENSMUSGC 339.3034 -0.51527 0.000102 0.006477 Enpd3  
ENSMUSGC 2479.372 -0.07351 0.56593 0.89104 Enpd5  
ENSMUSGC 1909.993 -0.27761 0.02818 0.256453 Enpd6  
ENSMUSGC 247.2063 -0.34186 0.10313 0.48855 Enpd7  
ENSMUSGC 3372.945 0.097544 0.263764 0.714352 Entr1  
ENSMUSGC 883.0914 -0.1143 0.295506 0.743814 Entrp1  
ENSMUSGC 2513.953 -0.00000 0.430403 0.900000 Entrp2  
ENSMUSGC 1719.326 0.11724 0.316564 0.772426 Entrp3  
ENSMUSGC 1210.636 -0.04007 0.686804 0.927864 Entrp4  
ENSMUSGC 1584.426 -0.01077 0.928955 0.991749 Eoqt  
ENSMUSGC 205.8259 0.27112 0.088654 0.56566 Eoqt1  
ENSMUSGC 24.31064 -0.38008 0.21008 0.492233 Eoqt4  
ENSMUSGC 1855.942 -0.04031 0.726449 0.944223 Ep300  
ENSMUSGC 2696 0.093834 0.294776 0.743798 Ep301  
ENSMUSGC 17517.16 0.063333 0.769743 0.964574 Ep401  
ENSMUSGC 1807.415 -0.02029 0.65405 0.912233 Ep404  
ENSMUSGC 3172.078 0.191078 0.045153 0.285230 Ep4b11  
ENSMUSGC 10560.98 0.092561 0.376506 0.801213 Ep4b12  
ENSMUSGC 4299.995 -0.28306 0.000289 0.014061 Ep4b13  
ENSMUSGC 131.0411 -0.04794 0.242094 0.823495 Ep4b14a  
ENSMUSGC 240.8408 0.090000 0.790019 0.84964 Ep4b14a0s  
ENSMUSGC 1545.728 0.205989 0.016931 0.154178 Ep4b14b  
ENSMUSGC 704.4173 0.139571 0.301456 0.748999 Ep4b15  
ENSMUSGC 967.7467 0.069325 0.52717 0.87745 Epc1  
ENSMUSGC 913.4709 0.00000 0.423456 0.827861 Epc2  
ENSMUSGC 24.32248 -0.12537 0.731288 0.944956 Epcam  
ENSMUSGC 92.09826 -0.28248 0.175234 0.670843 Epcb1  
ENSMUSGC 3425.819 -0.29292 0.029173 0.295974 Epcb2  
ENSMUSGC 1231.707 0.00000 0.480233 0.913395 Epcb3  
ENSMUSGC 10.46295 -0.36149 0.546587 Nn1 Epcb4  
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ENSMGSM 17.94292	0.090549	0.306144	0.75312	Fam12a
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ENSMGSM 2731.265	-0.01181	0.899096	0.985633	Fam21a
ENSMGSM 770.1896	-0.25474	0.020292	0.239472	Fam1a
ENSMGSM 17.94292	0.090549	0.306144	0.75312	Fam12a
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ENSMGSM 13.08227	0.27414	0.609312	Nm	Fam7e
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ENSMGSM 11.52562	0.453934	0.416519	Nm	Fam3b
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ENSMGSM 2242.073	0.094238	0.269326	0.745676	Fam1a1
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ENSMGSM 1324.618	-0.07996	0.336433	0.939435	Fam8b
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ENSMGSM 51.25677	-0.18197	0.072139	0.088396	Fan
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ENSMGSM 137.8182	-0.011694	0.543394	0.93965	Fan2c
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ENSMGSM 59.35667	-0.35292	0.588054	0.581815	Fan2c
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ENSMGSM 97.0226	-0.19764	0.355602	0.779153	Fan2c
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ENSMGSM 17.94292	0.090549	0.306144	0.75312	Fam12a
ENSMGSM 48.2516	-0.25372	0.052953	0.53204	Fat2
ENSMGSM 6352.926	0.147355	0.117415	0.517109	Farp1

NSM2018.218.869	0.191116	0.294889	0.980538	FanZ27b
NSM2018.205.285	-0.17774	0.10121	0.961756	FanMa27b
NSM2018.68.619	0.04023	0.89105	0.905058	FanMa28a
NSM2018.179.707	0.00000	0.00000	0.905058	FanMa28a
NSM2018.190.707	0.02740	0.87603	0.986644	FanMa28b
NSM2018.933.552	0.15762	0.91831	0.99529	FanMa29a
NSM2018.104.715	0.06178	0.61886	0.953251	FanMa34a
NSM2018.119.484	0.00000	0.00000	0.93039	FanMa34b
NSM2018.119.484	-0.0955	0.23212	0.90711	FanMa34b
NSM2018.234.097	-0.18708	0.07943	0.7758	FanMa38a
NSM2018.736.487	0.131847	0.35718	0.912411	FanMa38a
NSM2018.2289.758	0.00000	0.00000	0.912411	FanMa38a
NSM2018.128.196	0.11622	0.00000	0.923314	FanMa38a
NSM2018.410.264	-0.30252	0.90083	0.791074	FanMa38a
NSM2018.14.9523	0.299233	0.67062	0.951051	FanMa7e
NSM2018.591.051	0.08721	0.58244	0.944266	FanMa50a
NSM2018.12.984	0.00000	0.00000	0.944266	FanMa50a
NSM2018.104.868	-0.00813	0.94321	0.949748	FanMa50a
NSM2018.262.367	0.098121	0.33948	0.907972	FanMa53c
NSM2018.79.284	-0.6698	0.0502	0.12974	FanMa53c
NSM2018.12.984	0.00000	0.00000	0.907972	FanMa53c
NSM2018.418.185	0.286295	0.95014	0.708648	FanMa53c
NSM2018.131.851	-0.31764	0.13537	0.820581	FanMa78a
NSM2018.879.912	-0.04232	0.74737	0.969763	FanMa78b
NSM2018.12.984	0.00000	0.00000	0.969763	FanMa78b
NSM2018.733.689	0.299821	0.94312	0.911652	FanMa83b
NSM2018.17.6848	-0.72793	0.21371	0.64412	FanMa83b
NSM2018.99.5839	-0.32076	0.14172	0.86241	FanMa83b
NSM2018.12.984	0.00000	0.00000	0.86241	FanMa83b
NSM2018.803.808	0.085805	0.57257	0.942902	FanMa83b
NSM2018.192.018	0.05643	0.05192	0.950771	FanMa101a
NSM2018.955.5807	0.030891	0.83121	0.791948	FanMa101a
NSM2018.115.640	0.00000	0.00000	0.791948	FanMa101a
NSM2018.118.91	0.06942	0.53248	0.931652	FanMa8b
NSM2018.306.1851	-0.03316	0.83521	0.981327	FanMa1b
NSM2018.50.6513	0.322889	0.81234	0.901306	FanMa1b
NSM2018.274.758	0.00000	0.00000	0.901306	FanMa1b
NSM2018.132.462	0.00695	0.96686	0.959475	FanMa1b
NSM2018.128.277	0.17163	0.40008	0.912757	FanMa2d
NSM2018.733.3651	-0.05376	0.72444	0.968887	FanMa1b
NSM2018.52.6093	-0.43128	0.02605	0.81516	FanMa1b
NSM2018.12.984	0.00000	0.00000	0.81516	FanMa1b
NSM2018.22.364	-0.16754	0.69426	0.906867	FanMa1b
NSM2018.120.886	-0.03513	0.64004	0.986226	FanMa1b
NSM2018.419.638	0.04056	0.92584	0.97861	FanMa1b
NSM2018.10.5487	0.00000	0.00000	0.97861	FanMa1b
NSM2018.75.7333	0.12015	0.04274	0.953234	FanMa1b
NSM2018.1683.084	0.059287	0.64701	0.95422	FanMa1b
NSM2018.415.079	0.09915	0.48148	0.94798	FanMa1b
NSM2018.14.9523	0.29923	0.67062	0.951051	FanMa7e
NSM2018.99.5839	-0.32076	0.14172	0.86241	FanMa83b
NSM2018.12.984	0.00000	0.00000	0.86241	FanMa83b
NSM2018.803.808	0.085805	0.57257	0.942902	FanMa83b
NSM2018.192.018	0.05643	0.05192	0.950771	FanMa101a
NSM2018.955.5807	0.030891	0.83121	0.791948	FanMa101a
NSM2018.115.640	0.00000	0.00000	0.791948	FanMa101a
NSM2018.118.91	0.06942	0.53248	0.931652	FanMa8b
NSM2018.306.1851	-0.03316	0.83521	0.981327	FanMa1b
NSM2018.50.6513	0.322889	0.81234	0.901306	

ENSMUSGcFam98b	889.974	-0.00902	0.00
ENSMUSGcFam98c	1324.616	-0.00786	0.00
ENSMUSGcFam1	349.776	0.07725	0.00
ENSMUSGcFam2	52.216	0.00000	0.00
ENSMUSGcFam3	51.26677	-0.18137	0.00
ENSMUSGcFam4	254.8835	-0.06772	0.00
ENSMUSGcFam5	137.8182	0.011694	0.00
ENSMUSGcFam6	427.5414	0.062028	0.00
ENSMUSGcFam7	59.3215	0.15337	0.00
ENSMUSGcFam8	290.2359	0.120898	0.00
ENSMUSGcFam9	26.52288	0.0935	0.00
ENSMUSGcFam10	16.5688	0.13589	0.00
ENSMUSGcFam11	438.622	-0.10941	0.00
ENSMUSGcFam12	97.0226	-0.19764	0.00
ENSMUSGcFam13	76.24562	-0.1331	0.00
ENSMUSGcFam14	1789.544	-0.2849	0.00
ENSMUSGcFam15	418.255	0.0337	0.00
ENSMUSGcFam16	635.9226	0.1475	0.00
ENSMUSGcFam17	320.0176	0.10071	0.00
ENSMUSGcFam18	736.478	0.07023	0.00
ENSMUSGcFam19	742.515	0.0337	0.00
ENSMUSGcFam20	121.756	0.116396	0.00
ENSMUSGcFam21	85.19555	0.137787	0.00
ENSMUSGcFam22	1187.116	0.206592	0.00
ENSMUSGcFam23	364.8	0.1317	0.00
ENSMUSGcFam24	327.6798	0.00707	0.00
ENSMUSGcFam25	435.945	0.07023	0.00
ENSMUSGcFam26	221.3304	-0.14864	0.00
ENSMUSGcFam27	602.111	-0.06021	0.00
ENSMUSGcFam28	517.2226	-0.18085	0.00
ENSMUSGcFam29	28.04085	-0.20071	0.00
ENSMUSGcFam30	2316.375	-0.37894	0.00
ENSMUSGcFam31	624.211	-0.06021	0.00
ENSMUSGcFam32	840.022	0.096567	0.00
ENSMUSGcFam33	887.2562	0.137159	0.00
ENSMUSGcFam34	3554.153	0.375794	0.00
ENSMUSGcFam35	235.327	0.118656	0.00
ENSMUSGcFam36	51.622	0.153815	0.00
ENSMUSGcFam37	43.3307	-0.03004	0.00
ENSMUSGcFam38	777.899	-0.0841	0.00
ENSMUSGcFam39	475.2884	-0.20623	0.00
ENSMUSGcFam40	39.9	0.1475	0.00
ENSMUSGcFam41	150.1941	-0.40664	0.00
ENSMUSGcFam42	128.8412	-0.448678	0.00
ENSMUSGcFam43	294.926	-0.23881	0.00
ENSMUSGcFam44	141.814	-0.1713	0.00
ENSMUSGcFam45	97.45758	-0.04891	0.00
ENSMUSGcFam46	1795.69	0.15490	0.00
ENSMUSGcFam47	316.824	-0.00019	0.00
ENSMUSGcFam48	258.327	0.118656	0.00
ENSMUSGcFam49	114.8538	0.825153	0.00
ENSMUSGcFam50	101.884	-0.13233	0.00
ENSMUSGcFam51	526.327	0.07023	0.00
ENSMUSGcFam52	689.402	-0.27478	0.00
ENSMUSGcFam53	1691.748	0.119468	0.00
ENSMUSGcFam54	1932.204	0.21213	0.00
ENSMUSGcFam55	249.132	0.07023	0.00
ENSMUSGcFam56	1456.228	-0.2269	0.00
ENSMUSGcFam57	260.637	-0.1084	0.00
ENSMUSGcFam58	93.19335	-0.047071	0.00
ENSMUSGcFam59	258.327	0.118656	0.00
ENSMUSGcFam60	504.312	-0.00621	0.00
ENSMUSGcFam61	209.581	-0.04917	0.00
ENSMUSGcFam62	946.0285	-0.16719	0.00
ENSMUSGcFam63	63.21513	0.329301	0.00
ENSMUSGcFam64	18.184	0.1713	0.00
ENSMUSGcFam65	45.67983	-0.05451	0.00
ENSMUSGcFam66	130.99	-0.0458	0.00
ENSMUSGcFam67	324.843	0.086671	0.00
ENSMUSGcFam68	988	0.07023	0.00
ENSMUSGcFam69	83.8989	-0.1399	0.00
ENSMUSGcFam70	2884.878	0.172875	0.00
ENSMUSGcFam71	2814.186	0.11181	0.00
ENSMUSGcFam72	988	0.07023	0.00
ENSMUSGcFam73	115.9485	-0.25152	0.00
ENSMUSGcFam74	97.77	0.1339	0.00
ENSMUSGcFam75	259.2912	-0.10707	0.00
ENSMUSGcFam76	118.132	-0.0429	0.00
ENSMUSGcFam77	2130.789	0.14756	0.00
ENSMUSGcFam78	271.5458	0.087023	0.00

[illegible]



ENSGMUSG	25.09482	-1.25301	0.01766	0.200872	Fgpt	
ENSGMUSG	129.7109	-0.07567	0.547195	0.08881	Fgpt	
ENSGMUSG	324.607	0.07777	0.474901	0.435569	Fhml	
ENSGMUSG	115.511	-0.00001	0.00000	0.00000	Fhml	
ENSGMUSG	310.3503	0.21679	0.254007	0.740006	rchd1	
ENSGMUSG	176.5	39.0	0.04704	0.64298	0.918665	rchd2
ENSGMUSG	218.7316	0.00000	0.149429	0.801875	Fhml	
ENSGMUSG	98.6589	-0.27272	0.162362	0.05354	Fzfr	
ENSGMUSG	13.5805	-0.1265	0.00000	0.00000	Fzfr	
ENSGMUSG	246.118	-0.06288	0.666804	0.8922	rcf2	
ENSGMUSG	13.10871	0.02829	0.883336	Nu	rcfb	
ENSGMUSG	56.1425	0.27776	0.21232	0.24787	rcfb	
ENSGMUSG	243.148	-0.1519	0.00000	0.00000	rcfb	
ENSGMUSG	205.125	-0.08824	0.40289	0.815666	rd5	
ENSGMUSG	290.195	0.03283	0.778139	0.91686	rdv1	
ENSGMUSG	15.7812	0.562105	0.72205	Nu	rdv2	
ENSGMUSG	102.0316	0.36721	0.00000	0.00000	rdv2	
ENSGMUSG	62.1139	0.02618	0.734316	0.94956	rdv2	
ENSGMUSG	252.14	0.01698	0.84773	0.92734	rcfe	
ENSGMUSG	177.492	0.05658	0.51763	0.29359	rcfmla	
ENSGMUSG	16.0903	0.43561	0.00000	0.00000	rcfmla	
ENSGMUSG	2719.201	0.25692	0.01583	0.0465	femc	
ENSGMUSG	50.1913	0.00082	0.62654	0.91474	femc	
ENSGMUSG	200.5056	-0.07482	0.04761	0.929368	femc	
ENSGMUSG	21.40402	-0.45803	0.00000	0.00000	femc	
ENSGMUSG	488.933	0.15827	0.243564	0.69087	fe	
ENSGMUSG	22.85172	0.396373	0.42255	0.2878	femc	
ENSGMUSG	724.154	0.036468	0.602755	0.94887	femc	
ENSGMUSG	297.995	0.00000	0.00000	0.00000	femc	
ENSGMUSG	217.8209	0.06644	0.75212	0.92425	fe	
ENSGMUSG	67.096	0.3225	0.764951	0.95412	fe	
ENSGMUSG	331.623	0.06155	0.556067	0.87173	fe2	
ENSGMUSG	752.424	0.00000	0.00000	0.777782	fe2	
ENSGMUSG	818.2473	0.00000	0.540716	0.88315	fe2	
ENSGMUSG	476.456	0.02118	0.855678	0.97813	fe2	
ENSGMUSG	807.548	-0.19655	0.092979	0.468181	fg3	
ENSGMUSG	90.79	0.00000	0.00000	0.00000	fg3	
ENSGMUSG	200.920	0.03196	0.004882	0.92039	fg4	
ENSGMUSG	253.82	0.242562	0.01981	0.21219	fg5	
ENSGMUSG	882.734	-0.01705	0.745261	0.941918	fg5	
ENSGMUSG	94.1528	-0.18745	0.84682	0.831239	fg10	
ENSGMUSG	70.5436	-0.0369	0.91396	0.91396	fg10	
ENSGMUSG	2294.93	0.01948	0.846274	0.72722	fg12	
ENSGMUSG	6598.424	-0.00483	0.333623	0.75662	fg13	
ENSGMUSG	44.7533	-0.21771	0.04747	0.3355	fg14	
ENSGMUSG	16.1579	-0.3569	0.00000	0.00000	fg15	
ENSGMUSG	19.1194	0.08188	0.96792	Nu	fg16	
ENSGMUSG	36.35705	-0.0102	0.616228	0.96455	fg17	
ENSGMUSG	795.534	0.318406	0.02515	0.25245	fg2	
ENSGMUSG	45.4902	0.00000	0.00000	0.00000	fg2	
ENSGMUSG	63.4049	-0.11914	0.617114	0.91806	fg22	
ENSGMUSG	21.65229	-1.3091	0.05819	0.10269	fg3	
ENSGMUSG	49.18608	-0.37901	0.332104	0.75733	fg3	
ENSGMUSG	32.6555	-0.1336	0.00000	0.00000	fg3	
ENSGMUSG	404.0703	-0.29661	0.002271	0.02575	fg9	
ENSGMUSG	85.5803	-0.08551	0.765756	0.95417	fgpbl1	
ENSGMUSG	303.4247	-0.52562	0.05647	0.01851	fgpbl1	
ENSGMUSG	479.023	0.00737	0.00000	0.00000	fgpbl1	
ENSGMUSG	180.213	0.06655				

ENMUSG	1728.365	0.00791	0.009159	0.401114	Fdpss
ENMUSG	260.6835	-3.2298	0.9999	0.9994	F9788 Fc10
ENMUSG	12.43305	0.214795	0.703362	0.964841	Fdx2
ENMUSG	508.5456	0.12151	0.070965	0.999999	Fdx3
ENMUSG	148.5451	-0.0708	0.505546	0.945851	Fdx4
ENMUSG	2186.826	0.03505	0.76184	0.886134	Fech
ENMUSG	1599.5803	0.03101	0.281690	0.910790	Femia1
ENMUSG	13.63747	0.09886	0.800795	0.999999	Fem1b
ENMUSG	2353.829	0.1158	0.87904	0.97804	Fem1b
ENMUSG	459.2892	-0.0108	0.70401	0.962625	Fem1c
ENMUSG	177.5562	0.15544	0.47174	0.917257	Fem1d
ENMUSG	16.93961	0.10517	0.739552	0.983077	Fem1e
ENMUSG	403.619	0.13492	0.50471	0.916525	Fem1f
ENMUSG	16.63344	-0.2033	0.651955	0.956878	Fem1t1
ENMUSG	5972.042	0.22179	0.809096	0.77881	Fem2
ENMUSG	284.3693	0.10768	0.646461	0.923239	Fem3
ENMUSG	217.2533	0.08295	0.83239	0.999999	Fem4
ENMUSG	5505.287	-0.29778	0.85033	0.930093	Fem7
ENMUSG	1937.9312	0.20064	0.108554	0.840699	Fex2
ENMUSG	677.6493	0.084029	0.488914	0.925753	Fex3
ENMUSG	709.7434	0.10451	0.82329	0.988177	Fex4
ENMUSG	470.7823	0.249603	0.153183	0.837724	Fex5
ENMUSG	727.8885	-0.46763	0.20401	0.058872	Fg3d
ENMUSG	855.7766	0.06393	0.972763	0.9781	Fg4
ENMUSG	208.0921	0.04449	0.83239	0.988177	Fg5
ENMUSG	186.9	-0.15493	0.19531	0.06614	Fg6
ENMUSG	745.04	0.07242	0.67327	0.69304	Fg1
ENMUSG	93.6645	0.29903	0.74227	0.9781	Fg10
ENMUSG	704.63	0.04449	0.83239	0.988177	Fg11
ENMUSG	2057.763	0.07139	0.62458	0.952324	Fg12
ENMUSG	5691.74	-0.0559	0.68784	0.94805	Fg13
ENMUSG	43.3224	-0.0416	0.78494	0.97825	Fg14
ENMUSG	14.4323	0.04449	0.83239	0.988177	Fg15
ENMUSG	16.91564	-0.0742	0.78762	0.986644	Fg16
ENMUSG	40.30117	0.12938	0.190837	0.857313	Fg17
ENMUSG	677.7926	0.04573	0.809096	0.932319	Fg2
ENMUSG	47.77347	0.1158	0.87904	0.97804	Fg2
ENMUSG	66.1515	-0.26592	0.2636	0.08134	Fg2
ENMUSG	21.26335	0.89839	0.10150	0.625664	Fg2
ENMUSG	53.40232	0.260079	0.40779	0.971257	Fg5
ENMUSG	32.60713	0.10758	0.784766	0.976231	Fg7
ENMUSG	396.2513	0.08295	0.83239	0.999999	Fg7
ENMUSG	74.59315	-0.19166	0.28292	0.917257	Fg7
ENMUSG	349.4185	0.186521	0.205889	0.864421	Fg9b3
ENMUSG	4796.058	0.267063	0.069229	0.754547	Fg9b3
ENMUSG	165.51	0.04949	0.83239	0.988177	Fg9b3
ENMUSG	284.341	0.107274	0.646461	0.923239	Fg9b3
ENMUSG	10.1415	0.289952	0.477822	0.703953	Fg9b3
ENMUSG	1876.43	-0.09127	0.181361	0.931384	Fg10
ENMUSG	302.7888	0.04449	0.83239	0.988177	Fg10
ENMUSG	70.3454	0.19182	0.461478	0.932319	Fg12
ENMUSG	26.61643	-1.69168	0.03551	0.238323	Fg7
ENMUSG	1783.437	0.12385	0.904285	0.793573	Fg1
ENMUSG	188.5012	0.04449	0.83239	0.988177	Fg1
ENMUSG	133.8603	-0.21203	0.07242	0.049373	Fhd1
ENMUSG	96.2146	0.08406	0.72812	0.969313	Fh1a
ENMUSG	209.53	0.133426	0.201505	0.864421	Fh1a
ENMUSG	842.4796	0.04449	0.83239	0.988177	Fh1a
ENMUS					

ENSMUSGcf1	16.15705	0.52869	0.26928	NA	ENSMUSGcf16	14.42325	-0.5699	0.292365	0.897854
ENSMUSGcf2	19.1494	0.016858	0.267934	NA	ENSMUSGcf17	16.95164	-0.0472	0.872562	0.968618
ENSMUSGcf3	35.39305	0.08102	0.81628	0.96545	ENSMUSGcf18	40.30117	0.04328	0.190837	0.857813
ENSMUSGcf4	36.4746	0.00000	0.00000	0.00000	ENSMUSGcf19	36.4746	0.00000	0.00000	0.00000
ENSMUSGcf5	36.4746	0.00000	0.00000	0.00000	ENSMUSGcf20	47.7774	0.15104	0.72018	0.968618
ENSMUSGcf6	63.04109	0.11914	0.61714	0.110866	ENSMUSGcf21	66.15515	0.28592	0.2636	0.8614
ENSMUSGcf7	21.65259	-1.30091	-0.08059	0.102495	ENSMUSGcf22	21.26385	-0.98938	0.031015	0.296634
ENSMUSGcf8	15.4458	0.27301	0.33204	0.75573	ENSMUSGcf23	16.95164	-0.5699	0.292365	0.897854
ENSMUSGcf9	40.0703	0.39961	0.0272	0.259575	ENSMUSGcf24	32.40713	0.33638	0.784	0.977527
ENSMUSGcf9b1	85.5803	0.00857	0.67536	0.91458	ENSMUSGcf9b1	74.59315	-0.11666	0.42829	0.715257
ENSMUSGcf9b2	49.7923	0.00727	0.01414	0.01821	ENSMUSGcf9b2	47.965	-0.022	0.069229	0.25447
ENSMUSGcf9f1	1802.13	0.02805	0.75613	0.951479	ENSMUSGcf9f2	1655.12	0.04248	0.65312	0.95015
ENSMUSGcf9f2	2845.306	-0.16672	0.93104	0.632208	ENSMUSGcf9f2b1	2844.341	0.107724	0.45874	0.932219
ENSMUSGcf9f2b2	130.171	0.04089	0.73876	0.521133	ENSMUSGcf9f2b2	118.014	0.289952	0.04782	0.703953
ENSMUSGcf9f2b3	39.6736	-0.10284	0.2834	0.00000	ENSMUSGcf9f2b3	39.6736	-0.10284	0.2834	0.00000
ENSMUSGcf9f3	109.671	0.2311	0.86204	0.975055	ENSMUSGcf9f3	102.7088	-0.2885	0.54626	0.30383
ENSMUSGcf9f3b1	67.9636	-0.1851	0.45051	0.83542	ENSMUSGcf9f3b1	70.34554	-0.18182	0.461478	0.293283
ENSMUSGcf9f3b2	125.9458	-0.0889	0.48578	0.135367	ENSMUSGcf9f3b2	26.61449	-0.1968	0.03551	0.23823
ENSMUSGcf9f3b3	125.9458	-0.0889	0.48578	0.135367	ENSMUSGcf9f3b3	188.5012	-0.4124	0.09913	0.40749
ENSMUSGcf9f3b4	154.9442	0.023786	0.90019	0.956133	ENSMUSGcf9f3b4	133.8660	-0.12383	0.57073	0.941973
ENSMUSGcf9f3b5	108.0561	0.135823	0.82626	0.78905	ENSMUSGcf9f3b5	96.42146	0.08906	0.72842	0.966913
ENSMUSGcf9f3b6	88.6351	0.01965	0.58405	0.917273	ENSMUSGcf9f3b6	242.976	0.09798	0.40634	0.9174
ENSMUSGcf9f3b7	155.017	0.16394	0.125757	0.53257	ENSMUSGcf9f3b7	1371.954	0.074524	0.55069	0.93939
ENSMUSGcf9f3b8	120.8887	-0.00240	0.526613	0.877267	ENSMUSGcf9f3b8	102.5288	-0.00929	0.662037	0.956405
ENSMUSGcf9f3b9	120.8887	-0.00240	0.526613	0.877267	ENSMUSGcf9f3b9	187.614	-0.00929	0.662037	0.956405
ENSMUSGcf9f3b10	95.2126	0.04437	0.758126	0.95618	ENSMUSGcf9f3b10	507.3471	-0.15563	0.33929	0.90727
ENSMUSGcf9f3b11	83.1582	0.224619	0.3428	0.779011	ENSMUSGcf9f3b11	84.064	-0.12942	0.657304	0.957525
ENSMUSGcf9f3b12	21.40291	0.286041	0.51103	0.8793	ENSMUSGcf9f3b12	20.95388	0.4406	0.302194	0.898538
ENSMUSGcf9f3b13	128.4974	0.00000	0.00000	0.00000	ENSMUSGcf9f3b13	128.4974	0.00000	0.00000	0.00000
ENSMUSGcf9f3b14	174.2814	0.124816	0.38899	0.800408	ENSMUSGcf9f3b14	119.915	0.1708	0.23378	0.68989
ENSMUSGcf9f3b15	11.914	0.209475	0.22774	0.67477	ENSMUSGcf9f3b15	871.092	0.33438	0.06381	0.736482
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ENSMUSG 18.03777 -0.4094 0.369242 0.915491 Gcnp10327  
ENSMUSG 200.2219 0.22791 0.643935 0.951903 Gcnp10335  
ENSMUSG 12.54509 0.188294 0.043587 0.693034 Gcnp10384  
ENSMUSG 15.10595 0.02189 0.97486 0.917257 Gcnp10384  
ENSMUSG 30.8133 0.04796 0.915234 Gcnp10421  
ENSMUSG 291.854 0.32364 0.05643 0.74625 Gcnp1043  
ENSMUSG 18.18458 -0.13237 0.315042 0.93099 Gcnp10432  
ENSMUSG 125.9519 0.00019 0.819348 0.916446 Gcnp1  
ENSMUSG 191.6653 0.126253 0.05193 0.90309 Gcnp10516  
ENSMUSG 83.12899 0.00085 0.97192 0.99626 Gcnp10516  
ENSMUSG 44.4711 -0.35382 0.85895 0.98496 Gcnp10635  
ENSMUSG 47.8385 -0.16334 0.581901 0.84264 Gcnp10644  
ENSMUSG 17.9836 0.102407 0.00019 0.819348 0.916446 Gcnp1  
ENSMUSG 14.35343 0.43996 0.391473 0.917257 Gcnp10710  
ENSMUSG 15.47194 -0.37855 0.871043 0.92339 Gcnp10754  
ENSMUSG 12.97789 0.07436 0.963594 0.917257 Gcnp10785  
ENSMUSG 11.508 0.02189 0.97486 0.917257 Gcnp10785  
ENSMUSG 10.76126 0.04796 0.915234 Gcnp10841  
ENSMUSG 68.041



ENSGMUS	56.36818	-0.05566	0.847301	0.973734	0.973371	119192
ENSGMUS	31.6577	-0.05898	0.753426	0.905263	0.905333	12034
ENSGMUS	13.44981	-0.11976	0.81131	NA	NA	2165
ENSGMUS	13.44981	-0.11976	0.81131	NA	NA	2165
ENSGMUS	34.08493	0.04848	0.767588	0.975658	0.975658	12113
ENSGMUS	34.08493	0.04848	0.767588	0.975658	0.975658	12113
ENSGMUS	34.32395	0.031682	0.351499	0.783831	0.783831	12216
ENSGMUS	39.21253	0.04741	0.84894	0.970221	0.970221	12216
ENSGMUS	29.21347	0.04838	0.74721	0.924626	0.924626	12251
ENSGMUS	29.05527	0.04838	0.74721	0.924626	0.924626	12251
ENSGMUS	15.64871	0.25249	0.598162	NA	NA	12286
ENSGMUS	20.12598	0.05408	0.501956	NA	NA	12326
ENSGMUS	20.12598	0.05408	0.501956	NA	NA	12326
ENSGMUS	32.28319	0.18348	0.651651	0.921676	0.921676	12359
ENSGMUS	95.74354	-0.2027	0.377964	0.801561	0.801561	12371
ENSGMUS	8.871626	-0.16604	0.790247	NA	NA	12411
ENSGMUS	19.04324	0.07123	0.728588	0.943455	0.943455	12416
ENSGMUS	15.1721	0.07123	0.728588	0.943455	0.943455	12416
ENSGMUS	25.14264	-0.21355	0.636336	0.919169	0.919169	12512
ENSGMUS	30.51986	0.246933	0.490174	0.859139	0.859139	12532
ENSGMUS	56.40389	0.038293	0.901748	0.985333	0.985333	12592
ENSGMUS	56.40389	0.038293	0.901748	0.985333	0.985333	12592
ENSGMUS	60.47359	0.347006	0.079269	0.435105	0.435105	12655
ENSGMUS	27.956	0.173888	0.671385	0.928716	0.928716	12659
ENSGMUS	38.84792	-0.26239	0.41599	0.82084	0.82084	12758
ENSGMUS	8.46531	-0.04631	0.790247	NA	NA	12758
ENSGMUS	10.47723	-0.46391	0.271994	NA	NA	12915
ENSGMUS	42.53149	-0.04645	0.878882	0.981436	0.981436	12918
ENSGMUS	323.823	-0.01015	0.405781	0.816522	0.816522	12992
ENSGMUS	323.823	-0.01015	0.405781	0.816522	0.816522	12992
ENSGMUS	17.85292	0.39134	0.380701	NA	NA	13033
ENSGMUS	17.85292	0.39134	0.380701	NA	NA	13033
ENSGMUS	29.10023	0.04144	0.275765	0.756569	0.756569	13109
ENSGMUS	10.5681	-0.0871	0.86225	NA	NA	13226
ENSGMUS	10.5681	-0.0871	0.86225	NA	NA	13226
ENSGMUS	28.87678	-0.15018	0.60311	0.924627	0.924627	13292
ENSGMUS	46.4604	-0.08587	0.039195	0.971214	0.971214	13293
ENSGMUS	53.87821	-0.02616	0.817609	0.985333	0.985333	13375
ENSGMUS	53.87821	-0.02616	0.817609	0.985333	0.985333	13375
ENSGMUS	30.21079	-0.08006	0.343713	0.921719	0.921719	13406
ENSGMUS	30.1186	0.15456	0.656963	0.949169	0.949169	13416
ENSGMUS	57.82531	0.297605	0.234998	0.682334	0.682334	13421
ENSGMUS	97.52382	0.047374	0.850848	0.973638	0.973638	13436
ENSGMUS	97.52382	0.047374	0.850848	0.973638	0.973638	13436
ENSGMUS	28.73399	0.151501	0.763918	0.954015	0.954015	13464
ENSGMUS	11.02172	0.151501	0.763918	0.954015	0.954015	13464
ENSGMUS	12.84289	0.042838	0.151251	0.570688	0.570688	13498
ENSGMUS	12.84289	0.042838	0.151251	0.570688	0.570688	13498
ENSGMUS	12.84289	0.042838	0.151251	0.570688	0.570688	13498
ENSGMUS						

[illegible]

ENMUSSGSGC14305	318.1563	0.312405
ENMUSSGSGC14317	276.8319	0.20126
ENMUSSGSGC14322	65.18139	0.12445
ENMUSSGSGC14325	17.6722	0.01997
ENMUSSGSGC14326	300.7556	0.13267
ENMUSSGSGC14339	132.9003	0.21963
ENMUSSGSGC14410	770.4929	0.32077
ENMUSSGSGC14418	14.9552	0.01997
ENMUSSGSGC14419	13.9459	0.14689
ENMUSSGSGC14459	13.9459	0.54597
ENMUSSGSGC14584	12.42658	0.08475
ENMUSSGSGC14586	12.42658	0.08475
ENMUSSGSGC14634	36.7528	0.20616
ENMUSSGSGC14662	12.98806	0.28866
ENMUSSGSGC14824	12.74699	0.42241
ENMUSSGSGC14827	68.49894	0.14767
ENMUSSGSGC14966	12.1324	0.01997
ENMUSSGSGC15201	23.16579	0.02849
ENMUSSGSGC15246	40.24762	0.19066
ENMUSSGSGC15328	79.32978	0.27995
ENMUSSGSGC15382	45.3463	0.1324
ENMUSSGSGC15408	19.90067	0.24734
ENMUSSGSGC15417	13.9459	0.12339
ENMUSSGSGC15427	176.5185	0.11994
ENMUSSGSGC15446	21.3159	0.01997
ENMUSSGSGC15459	16.602	0.13625
ENMUSSGSGC15500	134.2175	0.30488
ENMUSSGSGC15501	134.2175	0.18182
ENMUSSGSGC15510	134.2175	0.18182
ENMUSSGSGC15542	17.96705	0.59637
ENMUSSGSGC15545	36.43105	0.27191
ENMUSSGSGC15559	51.19858	0.16346
ENMUSSGSGC15612	23.16579	0.02849
ENMUSSGSGC15663	23.4	0.05691
ENMUSSGSGC15698	15.96809	0.13864
ENMUSSGSGC15706	216.6287	0.10101
ENMUSSGSGC15708	68.49894	0.14767
ENMUSSGSGC15710	107.5539	0.04979
ENMUSSGSGC15743	36.60117	0.18365
ENMUSSGSGC15772	68.49894	0.08686
ENMUSSGSGC15787	68.49894	0.21394
ENMUSSGSGC15816	9.523604	0.04001
ENMUSSGSGC15850	17.32345	0.00308
ENMUSSGSGC15887	19.33752	0.06383
ENMUSSGSGC15938	19.33752	0.06383
ENMUSSGSGC15972	20.35494	0.23981
ENMUSSGSGC15997	20.35494	0.23981
ENMUSSGSGC16023	13.78275	0.35067
ENMUSSGSGC16043	75.10259	0.07595
ENMUSSGSGC16062	12.74699	0.01997
ENMUSSGSGC16124	47.63386	0.01679
ENMUSSGSGC16129	19.11545	0.35021
ENMUSSGSGC16238	19.97975	0.08598
ENMUSSGSGC16244	19.97975	0.08598
ENMUSSGSGC16384	14.2431	0.13274
ENMUSSGSGC16537	13.14516	0.31641
ENMUSSGSGC16576	72.96137	0.33317
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ENMUSSGSGC16630	9.90638	0.3571
ENMUSSGSGC16638	228.8099	0.01109
ENMUSSGSGC16675	29.98046	0.31363
ENMUSSGSGC16701	12.74699	0.01997
ENMUSSGSGC16740	72.24215	0.08636
ENMUSSGSGC16793	18.5982	0.15814
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ENMUSSGSGC16857	37.36666	0.02592
ENMUSSGSGC16861	59.81021	1.58049
ENMUSSGSGC16884	15.64719	0.11692
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ENMUSSGSGC16918	18.10247	0.02609
ENMUSSGSGC16973	157.8643	0.11162
ENMUSSGSGC17102	18.47162	0.21133
ENMUSSGSGC17244	12.74699	0.01997
ENMUSSGSGC17315	17.27107	0.24609
ENMUSSGSGC17344	13.8875	0.01679
ENMUSSGSGC17382	12.71965	0.07022
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ENMUSSGSGC17455	34.15422	0.27513
ENMUSSGSGC17484	49.0066	0.0886
ENMUSSGSGC17597	22.70918	0.19012
ENMUSSGSGC17624	12.74699	0.01997
ENMUSSGSGC17753	20.94572	0.26312
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ENMUSSGSGC17821	86.50912	0.62033
ENMUSSGSGC17823	86.50912	0.62033
ENMUSSGSGC17891	40.2687	0.09397
ENMUSSGSGC17911	151.0968	0.63042
ENMUSSGSGC17971	147.3781	1.37294
ENMUSSGSGC18180	12	

2997291 ENUSMGUSG1430	275.991	-0.16022	321275	0.90578
2997292 ENUSMGUSG1431	21.50918	-0.4895	746887	0.96768
2997293 ENUSMGUSG1432	56.94466	0.02184	0.91868	0.99229
2997294 ENUSMGUSG1433	10.75059	-0.00001	0.91868	0.99229
2997295 ENUSMGUSG1434	70.2787	0.01116	0.50761	0.92575
2997296 ENUSMGUSG1435	111.1522	0.04127	0.83191	0.9851
2997297 ENUSMGUSG1436	111.5886	-0.0824	0.6674	0.95676
2997298 ENUSMGUSG1437	10.75059	-0.00001	0.91868	0.99229
2997299 ENUSMGUSG1438	11.25059	-0.00001	0.72715	0.95478
2997300 ENUSMGUSG1439	83.9384	-0.0516	0.94953	0.94941
2997301 ENUSMGUSG1440	10.75059	-0.00001	0.91868	0.99229
2997302 ENUSMGUSG1441	10.75059	-0.00001	0.91868	0.99229
2997303 ENUSMGUSG1442	10.75059	-0.00001	0.91868	0.99229
2997304 ENUSMGUSG1443	10.75059	-0.00001	0.91868	0.99229
2997305 ENUSMGUSG1444	10.75059	-0.00001	0.91868	0.99229
2997306 ENUSMGUSG1445	10.75059	-0.00001	0.91868	0.99229
2997307 ENUSMGUSG1446	10.75059	-0.00001	0.91868	0.99229
2997308 ENUSMGUSG1447	10.75059	-0.00001	0.91868	0.99229
2997309 ENUSMGUSG1448	10.75059	-0.00001	0.91868	0.99229
2997310 ENUSMGUSG1449	10.75059	-0.00001	0.91868	0.99229
2997311 ENUSMGUSG1450	10.75059	-0.00001	0.91868	0.99229
2997312 ENUSMGUSG1451	10.75059	-0.00001	0.91868	0.99229
2997313 ENUSMGUSG1452	10.75059	-0.00001	0.91868	0.99229
2997314 ENUSMGUSG1453	10.75059	-0.00001	0.91868	0.99229
2997315 ENUSMGUSG1454	10.75059	-0.00001	0.91868	0.99229
2997316 ENUSMGUSG1455	10.75059	-0.00001	0.91868	0.99229
2997317 ENUSMGUSG1456	10.75059	-0.00001	0.91868	0.99229
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2997319 ENUSMGUSG1458	10.75059	-0.00001	0.91868	0.99229
2997320 ENUSMGUSG1459	10.75059	-0.00001	0.91868	0.99229
2997321 ENUSMGUSG1460	10.75059	-0.00001	0.91868	0.99229
2997322 ENUSMGUSG1461	10.75059	-0.00001	0.91868	0.99229
2997323 ENUSMGUSG1462	10.75059	-0.00001	0.91868	0.99229
2997324 ENUSMGUSG1463	10.75059	-0.00001	0.91868	0.99229
2997325 ENUSMGUSG1464	10.75059	-0.00001	0.91868	0.99229
2997326 ENUSMGUSG1465	10.75059	-0.00001	0.91868	0.99229
2997327 ENUSMGUSG1466	10.75059	-0.00001	0.91868	0.99229
2997328 ENUSMGUSG1467	10.75059	-0.00001	0.91868	0.99229
2997329 ENUSMGUSG1468	10.75059	-0.00001	0.91868	0.99229
2997330 ENUSMGUSG1469	10.75059	-0.00001	0.91868	0.99229
2997331 ENUSMGUSG1470	10.75059	-0.00001	0.91868	0.99229
2997332 ENUSMGUSG1471	10.75059	-0.00001	0.91868	0.99229
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2997334 ENUSMGUSG1473	10.75059	-0.00001	0.91868	0.99229
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2997336 ENUSMGUSG1475	10.75059	-0.00001	0.91868	0.99229
2997337 ENUSMGUSG1476	10.75059	-0.00001	0.91868	0.99229
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2997339 ENUSMGUSG1478	10.75059	-0.00001	0.91868	0.99229
2997340 ENUSMGUSG1479	10.75059	-0.00001	0.91868	0.99229
2997341 ENUSMGUSG1480	10.75059	-0.00001	0.91868	0.99229
2997342 ENUSMGUSG1481	10.75059	-0.00001	0.91868	0.99229
2997343 ENUSMGUSG1482	10.75059	-0.00001	0.91868	0.99229
2997344 ENUSMGUSG1483	10.75059	-0.00001	0.91868	0.99229
2997345 ENUSMGUSG1484	10.75059	-0.00001	0.91868	0.99229
2997346 ENUSMGUSG1485	10.75059</			



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ENSMUSGC 208.0519 -0.008 0.603329 0.940887 Gm19522  
ENSMUSGC 17.4805 0.16051 0.460517 0.931994 Gm19554  
ENSMUSGC 73.94552 0.099026 0.701632 0.937441 Gm19605  
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ENSMUSGC 86.41816 0.093963 0.38633 0.804623 Gm19796  
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ENSMUSGC 132.8826 -0.10919 0.603275 0.940887 Gm20111  
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ENSMUSGC 123.5608 0.022741 0.930317 0.991848 Gm20743  
ENSMUSGC 27.18147 -0.28426 0.546885 0.839183 Gm20751  
ENSMUSGC 20.401474 0.002217 0.995968 Na Gm20752  
ENSMUSGC 19.1808 0.01769 0.957684 Na Gm20759  
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ENSMUSGC 32.87096 -0.19215 0.591268 0.90113 Gm22039  
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ENSGMUS	36.4122	-0.12107	0.713893	0.940903	gm8355
ENSGMUS	68.8845	-0.0868	0.730704	0.943761	gm8451
ENSGMUS	14.47784	0.727316	0.168005	Nm	gm8404
ENSGMUS	28.67615	0.1871	0.81251	0.971333	gm8408
ENSGMUS	33.38852	0.19476	0.809597	0.932154	gm8407
ENSGMUS	24.8349	0.341818	0.361879	0.79277	gm8406
ENSGMUS	17.49074	0.317881	0.483781	Nm	gm8417
ENSGMUS	29.19025	0.2426	0.81251	0.971333	gm8408
ENSGMUS	30.75495	0.594355	0.113677	0.506698	gm8409
ENSGMUS	13.02386	-0.09661	0.861829	Nm	gm8497
ENSGMUS	13.11116	-0.04421	0.288858	Nm	gm8494
ENSGMUS	26.71498	0.1252	0.81251	0.971333	gm8408
ENSGMUS	18.34954	-0.13773	0.777191	Nm	gm8291
ENSGMUS	13.09603	-0.04851	0.929347	Nm	gm8330
ENSGMUS	14.50569	0.36387	0.447921	Nm	gm9033
ENSGMUS	14.12161	-0.04678	0.896478	Nm	gm9347
ENSGMUS	18.44482	0.08157	0.81251	0.971333	gm8408
ENSGMUS	15.87729	0.1728	0.421766	Nm	gm9403
ENSGMUS	56.6912	-0.25236	0.359765	0.791346	gm9349
ENSGMUS	9.380316	-0.16266	0.861958	Nm	gm9575
ENSGMUS	10.44119	0.24745	0.81251	0.971333	gm8408
ENSGMUS	39.97549	0.08851	0.195685	0.631099	gm9625
ENSGMUS	736.3007	-0.12572	0.419735	0.822433	gm9373
ENSGMUS	16.35254	0.19137	0.677055	Nm	gm9755
ENSGMUS	10.53693	0.08157	0.81251	0.971333	gm8408
ENSGMUS	107.528	-0.27109	0.164623	0.956525	gm9769
ENSGMUS	149.2459	0.02185	0.192711	0.613789	gm9794
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ENSGMUS	46.7619	0.1252	0.81251	0.971333	gm8408
ENSGMUS	59.58827	-0.07710	0.768455	0.954674	gm9107
ENSGMUS	14.64277	-0.05377	0.910031	Nm	gm9936
ENSGMUS	11.62759	0.18858	0.978034	Nm	gm9946
ENSGMUS	21.71841	-0.11167	0.81251	0.971333	gm8408
ENSGMUS	48.28587	-0.35011	0.230241	0.781392	gm9960
ENSGMUS	850.7324	-0.19139	0.086353	0.452005	gm1
ENSGMUS	19.9321	-0.0618	0.914718	0.882543	gm1
ENSGMUS	49.7946	0.1252	0.81251	0.971333	gm8408
ENSGMUS	706.1354	-0.0717	0.730337	0.944556	gm1
ENSGMUS	8939.384	0.00321	0.982823	0.997522	gm1b
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ENSGMUS	375.7132	0.25051	0.104809	0.489938	gm1
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ENSGMUS	56.14945	0.04265	0.813374	0.945674	gm1
ENSGMUS	834.2568	0.26811	0.042672	0.316769	gm1
ENSGMUS	238.7169	0.04478	0.738027	0.94064	gm1
ENSGMUS	68.48732	-0.10589	0.672819	0.920097	gm1
ENSGMUS	57.57072	0.022139	0.83518	0.974266	gm1p
ENSGMUS	1215.144	0.11602	0.280378	0.729291	gm1
ENSGMUS	6218.345	-0.10372	0.191525	0.606304	gm1a
ENSGMUS	890.072	0.00873	0.978034	0.997522	gm1b
ENSGMUS	5104.527	0.170331	0.08626	0.451752	gm1a3
ENSGMUS	93.7873	0.01476	0.945494	0.93935	gm1a
ENSGMUS	2675.438	-0.07237	0.940373	0.981022	gm1a
ENSGMUS	172.131	-0.06923	0.914718	0.882543	gm1a
ENSGMUS	1390.837	-0.00251	0.982406	0.997512	gm1a
ENSGMUS	6732.773	-0.23075	0.022545	0.229407	gm1a
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ENSMUSG	583.1721	0.32412	0.06128	0.94522	Gmpg
ENSMUSG	491.3484	0.02562	0.6472	0.98311	Gmpg2
ENSMUSG	109.1768	0.00000	0.43256	0.97279	Gna1
ENSMUSG	494.5841	0.02813	0.79574	0.97166	Gna2
ENSMUSG	754.7826	0.14375	0.18004	0.95698	Gna3
ENSMUSG	431.8344	0.04227	0.71865	0.94734	Gna13
ENSMUSG	98.46954	0.43256	0.00000	0.97799	Gna15
ENSMUSG	240.7833	0.00000	0.71865	0.97799	Gna15
ENSMUSG	15205.78	-0.1566	0.78311	0.98141	Gna2
ENSMUSG	252.229	-0.03937	0.71944	0.94248	Gna3
ENSMUSG	64.17	0.00000	0.43256	0.97279	Gna1
ENSMUSG	145.9044	0.21346	0.06381	0.78460	Gna2
ENSMUSG	53074.02	0.00152	0.95683	0.91453	Gna5
ENSMUSG	50418.48	0.13292	0.21731	0.86558	Gna1
ENSMUSG	192.219	0.06825	0.16044	0.95428	Gna1
ENSMUSG	242.14	0.00000	0.43256	0.97279	Gna1
ENSMUSG	99.4681	0.26334	0.37883	0.87259	Gna1
ENSMUSG	752.726	-0.1589	0.20884	0.86441	Gna2
ENSMUSG	117.231	-0.05626	0.71865	0.93903	Gna1
ENSMUSG	1934.41	0.14375	0.33018	0.95698	Gna3
ENSMUSG	638.1181	0.02162	0.67122	0.90864	Gna1
ENSMUSG	127.1472	0.14324	0.33131	0.97166	Gna10
ENSMUSG	278.8389	-0.0734	0.08168	0.93968	Gna11
ENSMUSG	625.197	0.43256	0.00000	0.97279	Gna1
ENSMUSG	1534.682	0.29976	0.07025	0.93876	Gna1
ENSMUSG	287.518	0.08637	0.35928	0.92785	Gna2
ENSMUSG	461.1501	0.17056	0.20386	0.92839	Gna3
ENSMUSG	190.296	0.00000	0.43256	0.97279	Gna1
ENSMUSG	115.027	0.12566	0.04532	0.93220	Gna7
ENSMUSG	15446.46	-0.08942	0.45032	0.92322	Gna7
ENSMUSG	57.8099	0.31764	0.05925	0.92781	Gna8
ENSMUSG	84.7606	0.43256	0.00000	0.97279	Gna1
ENSMUSG	86.5866	0.04557	0.62915	0.93251	Gna1
ENSMUSG	141.682	0.01615	0.10187	0.91296	Gna2
ENSMUSG	523.1311	0.00195	0.46327	0.93239	Gna1
ENSMUSG	3227.048	0.04407	0.33018	0.95698	Gna3
ENSMUSG	17.3761	0.67594	0.125	0.85156	Gmp1
ENSMUSG	21.1841	0.03132	0.77267	0.97463	Gmp1
ENSMUSG	541.8699	0.16599	0.21744	0.95859	Gnpd1
ENSMUSG	524.7684	0.08737	0.35195	0.93474	Gnpd1
ENSMUSG	160.401	0.00000	0.43256	0.97279	Gna1
ENSMUSG	2634.545	0.22494	0.13823	0.82842	Gnp1b
ENSMUSG	3341.377	0.30961	0.02525	0.80687	Gnp1b
ENSMUSG	13.91694	0.58176	0.38005	0.89354	Gnp1b
ENSMUSG	4197.831	0.18629	0.21744	0.95859	Gnpd1
ENSMUSG	954.976	0.37307	0.02869	0.72585	Gol1
ENSMUSG	2538.451	-0.0008	0.39345	0.93906	Gol2
ENSMUSG	119.0348	0.04525	0.084	0.96765	Gol2
ENSMUSG	3567.473	0.00000	0.43256	0.97279	Gna1
ENSMUSG	955.2429	0.02892	0.82002	0.97681	Gol5
ENSMUSG	5901.893	0.19951	0.26522	0.88513	Gol5
ENSMUSG	550.525	-0.05508	0.06528	0.94374	Gol7b
ENSMUSG	280.239	0.00000	0.43256	0.97279	Gna1
ENSMUSG	1730.428	0.02341	0.84218	0.90344	Gol1d
ENSMUSG	182.178	0.32598	0.05195	0.71116	Gol1b
ENSMUSG	4305.092	0.07346	0.15193	0.72474	Gol2
ENSMUSG	2251.621	0.00000	0.43256	0.97279	Gna1
ENSMUSG	427.4297	0.00303	0.84667	0.90693	Golp1
ENSMUSG	112.1152	0.09825	0.5		

ENSMUSGCGolga4	4019.52	-0.0178	0.983231
ENSMUSGCGolga5	1109.68	0.133528	0.951385
ENSMUSGCGolga7	6786.516	0.0071	0.877833
ENSMUSGCGolga7b	259.01	0.01181	0.98932
ENSMUSGCGolga7c	3883.272	-0.22425	0.90705
ENSMUSGCGolma4	1864.974	-0.3081	0.788789
ENSMUSGCGolm1	170.999	0.00882	0.976103
ENSMUSGCGolm2	421.26	0.0001	0.971718
ENSMUSGCGolp3	2635.202	0.071351	0.445029
ENSMUSGCGolp3b	486.169	0.107026	0.365205
ENSMUSGCGolb1b	1024.95	-0.4181	0.00403
ENSMUSGCGolp1	289.011	0.01881	0.971718
ENSMUSGCGolm7	102.716	-0.1927	0.346211
ENSMUSGCGor	1088.484	-0.05064	0.6121
ENSMUSGCGorab	160.3083	-0.1272	0.262486
ENSMUSGCGorasp1	915.934	-0.22166	0.83749
ENSMUSGCGorasp2	229.22	0.1597	0.545765
ENSMUSGCGor1	144.474	0.0555	0.451885
ENSMUSGCGor2	43.247	0.031854	0.715854
ENSMUSGCGor4	4068.094	0.042486	0.77018
ENSMUSGCGor5	20.126	0.0001	0.971718
ENSMUSGCGor6	4165.683	0.021954	0.8332
ENSMUSGCGor1bb	28.89394	0.213883	0.563192
ENSMUSGCGor5	21.4009	-0.0028	0.942484
ENSMUSGCGor6	35.3535	0.0001	0.971718
ENSMUSGCGoraa1	136.167	0.0893	0.492582
ENSMUSGCGorap1a	796.876	0.07398	0.365205
ENSMUSGCGorap	646.747	0.18369	0.106973
ENSMUSGCGorap1b	129.22	0.0001	0.971718
ENSMUSGCGorap3	85.947	-0.76056	0.00051
ENSMUSGCGorap4	3324.189	0.0728	0.562311
ENSMUSGCGorap1c1	820.185	0.14384	0.234705
ENSMUSGCGorap1c2	75.22	0.0001	0.971718
ENSMUSGCGorap2	67.11768	0.0893	0.492582
ENSMUSGCGorap2b1	112.635	0.01375	0.881264
ENSMUSGCGorap3	124.5145	-0.2218	0.512512
ENSMUSGCGorap4	266.01	0.0001	0.971718
ENSMUSGCGorap8	3727.808	0.15551	0.77018
ENSMUSGCGorpb1	151.605	0.01188	0.365062
ENSMUSGCGorpb1b1	397.993	0.03947	0.684396
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ENSMUSGCGorpb2	35.3535	0.0001	0.971718
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ENSMUSGCGorpb4	548.6062	-0.4635	0.0013
ENSMUSGCGorpb5	456.5972	0.0665	0.825353
ENSMUSGCGorpb6	55.3535	0.0001	0.971718
ENSMUSGCGorpb1c1	2757.395	0.2555	0.50478
ENSMUSGCGorpb1	3761.952	0.20421	0.037702
ENSMUSGCGorpb1	3934.15	0.12624	0.120784
ENSMUSGCGorpb2	55.3535	0.0001	0.971718
ENSMUSGCGorpb1	103.087	0.0081	0.975407
ENSMUSGCGorpb1b	1618.244	0.04823	0.646633
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ENSMUSGCGorpb1b	119.22	0.0001	0.971718
ENSMUSGCGorpb1c1	1073.172	0.05397	0.93475
ENSMUSGCGorpb1	3288.088	-0.1147	0.362457
ENSMUSGCGorpb1a	409.4781	-0.2825	0.656265
ENSMUSGCGorpb1b	98.22	0.0001	0.971718
ENSMUSGCGorpb1	777.842	0.04056	0.390387
ENSMUSGCGorpb1	204.5415	0.20816	0.20838
ENSMUSGCGorpb3	360.444	-0.11398	0.80145
ENSMUSGCGorpb1b1	96.22	0.0001	0.971718
ENSMUSGCGorpb1c1	120.2802	-0.01764	0.614917
ENSMUSGCGorpb1c2	2327.431	-0.11737	0.426153
ENSMUSGCGorpb1c3	98.22366	0.07394	0.644805
ENSMUSGCGorpb1c4	119.22	0.0001	0.971718
ENSMUSGCGorpb1c5	397.959	-0.5468	0.000001
ENSMUSGCGorpb1c6	4043.224	0.03412	0.975363
ENSMUSGCGorpb1c7	431.6405	-0.12474	0.388761
ENSMUSGCGorpb1c8	786.7794	-0.4478	0.000001
ENSMUSGCGorpb1c9	431.18372	-0.1474	0.30548
ENSMUSGCGorpb1c10	1131.004	-0.2365	0.147683
ENSMUSGCGorpb1c11	34.87277	-0.32198	0.001491
ENSMUSGCGorpb1c12	96.22	0.0001	0.971718
ENSMUSGCGorpb1c13			

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ENSMUSG 12652.42 -0.157908 0.188218 0.5698 Gp91a  
ENSMUSG 108.711 0.385303 0.009202 0.014927 Gp91a  
ENSMUSG 689.6867 0.152005 0.124234 0.814091 Gp91a  
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ENSMUSG 2589.238 0.16633 0.333333 0.907071 Gp91a  
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ENSMUSG 71.8811 -0.43369 0.071807 0.71321 Gp91a  
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ENSMUSG 1977.182 0.171751 0.172046 0.843003 Gp91a  
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ENSMUSG 2115.07 0.158847 0.33065 0.868507 Gp91a  
ENSMUSG 117.4048 -0.38955 0.168964 0.840222 Gp91a  
ENSMUSG 4093.1493 0.195349 0.021651 0.872134 Gp91a  
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ENSMUSG 651.2861 -0.051907 0.526228 0.883082 Gp91a  
ENSMUSG 1596.414 0.140028 0.38754 0.917257 Gp91a  
ENSMUSG 26.1842 0.015462 0.088124 0.917257 Gp91a  
ENSMUSG 1892.198 0.05334 0.358311 0.950515 Gp91a  
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ENSMUSG 104.7538 0.294406 0.165238 0.838741 Gp91a  
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ENSMUSG 5658.566 0.176153 0.01967 0.917319 Gp91a  
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ENSMUSG 2714.428 -0.03148 0.799532 0.9781 Gp91a  
ENSMUSG 465.7874 -0.25517 0.757583 0.9636 Gp91a  
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ENSMUS



ENSGMUS7	19.8662	0.24236	0.60287	0.94789	Gueno
ENSGMUS8	48.8866	-0.07471	0.63858	0.95033	Guedo
ENSGMUS12	131.846	-0.18952	0.30621	0.98383	Guey
ENSGMUS13	66.8021	-0.05459	0.34585	0.98383	Guey
ENSGMUS15	229.544	0.02640	0.60454	0.98073	Guey
ENSGMUS16	109.0356	-0.17073	0.63887	N/A	Guey
ENSGMUS17	297.0625	-0.18275	0.43931	0.925673	Guey
ENSGMUS18	36.4056	-0.05459	0.34585	0.98383	Guey
ENSGMUS19	137.2957	-0.05459	0.34585	0.98383	Guey
ENSGMUS20	126.0131	0.120764	0.34907	0.911652	Guy
ENSGMUS24	402.154	-0.26332	0.01051	0.936431	Guy
ENSGMUS25	114.884	0.02640	0.60454	0.98073	Guey
ENSGMUS26	903.016	0.134585	0.37781	0.915481	Guey
ENSGMUS29	752.792	0.13459	0.38945	N/A	Guey
ENSGMUS30	9.9399	0.076319	0.59574	0.95853	Guy
ENSGMUS34	118.1403	0.289695	0.20581	0.984212	Guy
ENSGMUS35	851.594	-0.18952	0.30621	0.98383	Guey
ENSGMUS36	26.29635	0.045917	0.62497	0.993573	Guy
ENSGMUS38	88.9349	-0.02875	0.90938	0.99158	Guy
ENSGMUS39	956.1042	0.014577	0.90113	0.990558	Guy
ENSGMUS40	105.248	-0.18952	0.30621	0.98383	Guey
ENSGMUS45	15.14582	-0.14035	0.94148	0.860096	Gum
ENSGMUS49	25.91611	-0.0306	0.918057	0.992529	Gum
ENSGMUS50	27.734	0.0689	0.011427	0.950771	Hi
ENSGMUS51	45.17948	-0.07471	0.63858	0.95033	Guedo
ENSGMUS53	381.1408	-0.37939	0.00047	0.99764	Hi
ENSGMUS55	121.172	-0.11006	0.91622	0.917257	Hi
ENSGMUS56	15.63305	-0.10094	0.42626	0.97681	Hi
ENSGMUS57	140.705	-0.18952	0.30621	0.98383	Guey
ENSGMUS58	141.5349	-0.35156	0.118018	0.92334	Hi
ENSGMUS59	117.6668	-0.19352	0.18895	0.93384	Hi
ENSGMUS60	121.5258	-0.36603	0.08193	0.77321	Hi
ENSGMUS61	125.7796	-0.18952	0.30621	0.98383	Guey
ENSGMUS64	279.054	0.09054	0.64339	0.953988	Hi
ENSGMUS64.1	90.3014	-0.58621	0.02042	0.917913	Hi
ENSGMUS65	129.943	-0.18989	0.107872	0.940699	Hi
ENSGMUS66	439.1816	-0.18952	0.30621	0.98383	Guey
ENSGMUS67	124.1134	-0.00849	0.919234	0.99388	Hi
ENSGMUS68	140.1512	-0.16661	0.21477	0.968481	Hi
ENSGMUS69	14.29007	-0.0634	0.21382	0.864421	Hi
ENSGMUS70	153.1487	-0.30324	0.07837	0.78582	Hi
ENSGMUS71	322.715	-0.05459	0.34585	0.98383	Guey
ENSGMUS75	151.2305	-0.28831	0.05076	0.73362	Hi
ENSGMUS76	24.224	-0.0489	0.001704	0.912517	Hi
ENSGMUS78	23.48207	0.02335	0.95766	0.99478	Hi
ENSGMUS79	140.705	-0.18952	0.30621	0.98383	Guey
ENSGMUS80	54.0025	-0.10289	0.42626	0.917257	Hi
ENSGMUS81	22.81763	0.328721	0.17621	0.965099	Hi
ENSGMUS82	22.84807	0.487497	0.28622	0.98749	Hi
ENSGMUS83	118.1403	0.289695	0.20581	0.984212	Guy
ENSGMUS85	154.648	0.16375	0.29444	0.98538	Hi
ENSGMUS86	13.27984	-0.27079	0.62859	0.935251	Hi
ENSGMUS87	93.04153	0.15095	0.92857	0.97825	Hi
ENSGMUS88	147.2599	-0.18952	0.30621	0.98383	Guey
ENSGMUS89	27.734	0.0689	0.011427	0.950771	Hi
ENSGMUS90	42.9297	-0.01825	0.95581	0.998708	Hi
ENSGMUS93	38.0246	-0.0456	0.23181	0.89457	Hi
ENSGMUS94	27.0629	-0.05459	0.34585	0.98383	Guey
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0.130057	0.101235	0.484996	ENSMUSGHC2-M5-Ms	93.04153
-0.32	0.126453	0.333885	ENSMUSGHC2-Qa	39.42997
-0.3126	0.306043	0.777	ENSMUSGHC2-Qb	38.00246
-0.3126	0.306043	0.640239	ENSMUSGHC2-Qc	37.66209
-0.3126	0.306043	0.640239	ENSMUSGHC2-Qd	37.66209
-0.3126	0.306043	0.640239	ENSMUSGHC2-Qe	37.66209
-0.3126	0.306043	0.640239	ENSMUSGHC2-Qf	37.66209
-0.3126	0.306043	0.640239	ENSMUSGHC2-Qg	37.66209
-0.3126	0.306043	0.640239	ENSMUSGHC2-Qh	37.66209
-0.3126	0.306043	0.640239	ENSMUSGHC2-Qi	37.66209
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72.307085	1.069375	64
72.309192	1.098000	65
72.311299	1.126625	66
72.313406	1.155250	67
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72.319727	1.241125	70
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72.323941	1.298375	72
72.326048	1.327000	73
72.328155	1.355625	74
72.330262	1.384250	75
72.332369	1.412875	76
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72.340797	1.527375	80
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72.345011	1.584625	82
72.347118	1.613250	83
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72.353439	1.699125	86
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72.366081	1.870875	92
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ENSMUSG 259.9468 -0.05413 0.738076 0.947329 Hwa-r2  
ENSMUSG 762.9485 -0.05837 0.619559 0.913142 Hwa-1  
ENSMUSG 7900.489 -0.666129 0.453121 0.93311 Hwa-b1  
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ENSMUSG 2266.671 -0.70706 0.060173 0.937324 Hbb-b2  
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ENSMUSG 959.2832 -0.52317 8.95e-08 2.42E-05 Hda1c  
ENSMUSG 439.6901 0.137199 0.083126 0.444839 Hda1c  
ENSMUSG 5231.345 0.039903 0.34137 0.888888 Hda1c-1  
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ENSMUSG 2470.617 0.056145 0.055955 0.076668 Hda3  
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ENSMUSG 14.10579 0.336152 0.499318 NA i6r2-ps  
ENSMUSG 11.92927 -0.18437 0.05497 NA i6r  
ENSMUSG 27.88844 -0.262 0.469618 0.846167 i6r2  
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ENSMUSG 979.1531 -0.00828 0.03475 0.932331 i6r  
ENSMUSG 1533.417 -0.14196 0.125206 0.532314 i6r  
ENSMUSG 194.1708 -0.22611 0.144473 0.564831 i6r  
ENSMUSG 76.9284 0.02145 0.049892 0.908784 i6r  
ENSMUSG 452.9027 0.01852 0.017889 0.910872 i6r  
ENSMUSG 5312.783 -0.06764 0.577344 0.895776 i6r  
ENSMUSG 1333.537 0.066929 0.54784 0.885513 i6r  
ENSMUSG 490.8876 -0.01671 0.90199 0.958533 i6r  
ENSMUSG 318.384 0.048983 0.14073 0.949593 i6r  
ENSMUSG 21.7172 0.51794 0.241387 0.690747 i6r  
ENSMUSG 331.8409 -0.15406 0.324719 0.770182 i6r  
ENSMUSG 716.426 0.028407 0.859184 0.974708 i6r  
ENSMUSG 182.2833 0.000000 0.000000 0.964742 i6r  
ENSMUSG 330.4626 -0.28443 0.133091 0.545688 i6r  
ENSMUSG 7.938654 -0.38729 0.580606 NA i6r  
ENSMUSG 630.957 0.025789 0.805414 0.962616 i6r  
ENSMUSG 61.60586 0.00838 0.780655 0.957493 i6r  
ENSMUSG 2548.403 0.072709 0.795726 0.960602 i6r  
ENSMUSG 10.05538 -0.58453 0.347314 NA i6r  
ENSMUSG 987.6597 0.025356 0.798647 0.960896 i6r  
ENSMUSG 375.6144 0.12234 0.931499 0.980874 i6r  
ENSMUSG 989.6258 0.04552 0.000000 0.964742 i6r  
ENSMUSG 778.5052 0.151774 0.170697 0.605271 i6r  
ENSMUSG 129.8077 0.07157 0.714164 0.941003 i6r  
ENSMUSG 923.9834 -0.06089 0.581613 0.897855 i6r  
ENSMUSG 780.828 0.049892 0.14073 0.949593 i6r  
ENSMUSG 2943.111 0.155844 0.126275 0.932314 i6r  
ENSMUSG 140.0271 -0.22867 0.185462 0.62185 i6r  
ENSMUSG 1682.251 -0.00539 0.952721 0.998874 i6r  
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ENSMUSG 897.6445 0.24991 0.03313 0.728692 i6r  
ENSMUSG 728.4508 0.0706 0.596304 0.903254 i6r  
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ENSMUSG 15319.85 -0.19381 0.164166 0.05949 i6r  
ENSMUSG 1247.167 0.04552 0.000000 0.964742 i6r  
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ENSMUSG 101.761 -0.46081 0.02922 0.259574 i6r  
ENSMUSG 3813.714 0.41578 0.009392 0.808825 i6r  
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ENSMUSG 10.25899 -0.48764 0.7456 NA i6r  
ENSMUSG 159.927 -0.11273 0.52758 0.877641 i6r  
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ENSMUSG 43.22805 -0.84005 0.797258 0.960607 i6r  
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ENSMUSG 1075.06 0.09511 0.347671 0.780995 i6r  
ENSMUSG 758.1517 0.174519 0.099648 0.473735 i6r  
ENSMUSG 204.604 0.063399 0.686178 0.932981 i6r  
ENSMUSG 903.2027 0.116023 0.294212 0.964742 i6r  
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ENSMUSG 648.5903 0.042355 0.057999 0.913796 i6r  
ENSMUSG 400.8054 0.19859 0.14799 0.974524 i6r  
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ENSMUSG 1587.086 -0.08682 0.477416 0.852548 i6r  
ENSMUSG 43.03022 -0.17147 0.459181 0.887373 i6r  
ENSMUSG 153.756 0.167031 0.009502 0.746323 i6r  
ENSMUSG 1605.313 0.052077 0.666449 0.927243 i6r  
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ENSMUSG 473.0081 0.263404 0.033879 0.282701 i6r  
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ENSMUSG 89.57898 -0.23563 0.421789 0.823735 i6r  
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ENSMUSG 1355.028 -0.13109 0.217321 0.663824 i6r

ENSMUSG 132.2062 0.306853 0.396957 0.917257 i6r  
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ENSMUSG 359.720 0.23701 0.21546 0.865167 i6r  
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ENSMUSG 55.2499 -0.09045 0.761305 0.972819 i6r  
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ENSMUSG 1118.206 0.05382 0.687195 0.960868 i6r  
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ENSMUSG 100.579 -0.20573 0.76022 0.915491 i6r  
ENSMUSG 3735.821 -0.17921 0.261458 0.884926 i6r  
ENSMUSG 1296.092 0.203495 0.16268 0.837724 i6r  
ENSMUSG 260.0052 0.879403 0.05362 0.70293 i6r  
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ENSMUSG 148.5512 0.076531 0.08454 0.93303 i6r  
ENSMUSG 615.0108 0.002449 0.88506 0.97948 i6r  
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ENSMUSG 1154.721 0.05786 0.69065 0.960071 i6r  
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ENSMUSG 2805.923 0.012797 0.92089 0.92964 i6r  
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ENSMUSG 241.1549 -0.13981 0.393906 0.917257 i6r  
ENSMUSG 352.8511 -0.12027 0.04955 0.926604 i6r  
ENSMUSG 1165.648 -0.172288 0.93929 0.98384 i6r  
ENSMUSG 54.8684 -0.22553 0.458511 0.913759 i6r  
ENSMUSG 46.14498 0.167655 0.629181 0.9604 i6r  
ENSMUSG 416.7993 0.086796 0.545426 0.939565 i6r  
ENSMUSG 168.088 -0.09625 0.747929 0.938063 i6r  
ENSMUSG 28.29227 0.091325 0.919848 0.97948 i6r  
ENSMUSG 1093.011 0.055449 0.727259 0.95694 i6r  
ENSMUSG 1200.959 0.08446 0.735125 0.96734 i6r  
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ENSMUSG 572.4994 0.565424 0.000000 0.964742 i6r  
ENSMUSG 55.5364 -0.38591 0.713857 0.844317 i6r  
ENSMUSG 940.269 0.07804 0.547934 0.938063 i6r  
ENSMUSG 1173.47 0.158117 0.93929 0.98384 i6r  
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ENSMUSG 50.98829 0.11288 0.69957 0.961335 i6r  
ENSMUSG 86.05172 0.34412 0.15703 0.877724 i6r  
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ENSMUSG 312.194 0.04887 0.93929 0.98384 i6r  
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ENSMUSG 118.0111 0.220128 0.93929 0.98384 i6r  
ENSMUSG 183.05 0.09544 0.58535 0.923328 i6r  
ENSMUSG 192.6838 0.324218 0.077054 0.75555 i6r  
ENSMUSG 716.374 0.216897 0.14654 0.93929 i6r  
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ENSMUSG 115.7471 -0.06084 0.593898 0.94798 i6r  
ENSMUSG 120.0019 0.001982 0.988804 0.978782 i6r  
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ENSMUSG 157.2971 0.029219 0.893605 0.90955 i6r  
ENSMUSG 266.398 0.31062 0.65549 0.93959 i6r  
ENSMUSG 45.3476 0.139879 0.39125 0.917257 i6r  
ENSMUSG 263.0584 0.15425 0.93929 0.98384 i6r  
ENSMUSG 186.348 0.510849 0.014687 0.877724 i6r  
ENSMUSG 3899.146 0.051588 0.627241 0.953234 i6r  
ENSMUSG 411.8767 0.10867 0.48078 0.9454 i6r  
ENSMUSG 1136.572 0.124586 0.36322 0.917257 i6r  
ENSMUSG 174.6929 -0.52837 0.266326 0.886134 i6r  
ENSMUSG 17.8551 -0.88504 0.799505 0.9785 i6r  
ENSMUSG 3029.059 -0.05001 0.657588 0.955772 i6r  
ENSMUSG 398.6858 -0.8602 0.161651 0.95143 i6r  
ENSMUSG 188.412 -0.2326 0.042188 0.6904 i6r  
ENSMUSG 84.471 0.03543 0.884572 0.969868 i6r  
ENSMUSG 89.414 -0.19975 0.49217 0.92329 i6r  
ENSMUSG 342.3577 0.107845 0.44728 0.92202 i6r  
ENSMUSG



ENSMUSG 661.6655	-0.176505	0.123208	0.530407	lr3	ENSMUSG 483.8013	0.148144	0.317857	0.902849	lr1b1	ENSMUSGicad	5051.157	0.182139	0.042263	0.316636	ENSMUSGicad	4553.033	0.155259	0.226065	0.868507
ENSMUSG 13.24407	0.2542	0.651652	NA	lr4	ENSMUSG 642.5558	-0.17481	0.17391	0.844317	lr1b1p1	ENSMUSGichain	26.0449	0.34264	0.4261	0.841881	ENSMUSGichain	22.46181	0.267206	0.583544	0.934975
ENSMUSG 213.7488	0.040099	0.825272	0.863531	lr5	ENSMUSG 14.64234	0.26043	0.637656	0.933903	lr1b1p2	ENSMUSGicj1	1147.439	0.131759	0.316868	0.763754	ENSMUSGicj1	980.507	-0.05317	0.70875	0.93616
ENSMUSG 6.726886	0.702179	0.280873	NA	lr6	ENSMUSG 407.2476	-0.21095	0.272569	0.885807	lr1b2	ENSMUSGicjamp	1417.418	-0.26882	0.036221	0.293031	ENSMUSGicjamp	146.381	0.258495	0.339479	0.917257
ENSMUSG 158.373	-0.24891	0.177611	0.61504	lr7	ENSMUSG 162.4612	0.044042	0.486838	0.985321	lr1b3	ENSMUSGicjmtc1	2263.055	-0.15355	0.170538	0.605271	ENSMUSGicjmtc1	2227.564	0.07113	0.586201	0.949475
ENSMUSG 265.602	0.083938	0.787197	0.950417	lr8	ENSMUSG 50.21207	-0.22774	0.279537	0.892356	lr1b3p	ENSMUSGicjmtc4	73.0621	0.002623	0.478953	0.895902	ENSMUSGicjmtc4	865.7154	-0.01112	0.527862	0.93906
ENSMUSG 455.8337	0.13113	0.090917	0.995059	lr9	ENSMUSG 72.0127	-0.25843	0.651979	0.78906	lr1b4	ENSMUSGicjmtc5	838.205	-0.045	0.87987	0.959004	ENSMUSGicjmtc5	61.215	0.105945	0.450599	0.923025
ENSMUSG 381.1176	-0.22136	0.076094	0.42702	lr10	ENSMUSG 3941.456	0.033419	0.831725	0.908056	lr1b5	ENSMUSGicjmtc8	1521.096	0.02126	0.432657	0.824045	ENSMUSGicjmtc8	151.8045	0.149236	0.325199	0.905339
ENSMUSG 165.5415	-0.07145	0.699103	0.936835	lr1m2	ENSMUSG 51.86903	0.036666	0.90508	0.991089	lr1b7	ENSMUSGicjmy	2807.354	0.07585	0.436713	0.826789	ENSMUSGicjmy	1921.555	0.094398	0.394877	0.917257
ENSMUSG 4510.523	0.195239	0.027208	0.252345	lrq1	ENSMUSG 2845.751	0.057219	0.762246	0.966887	lr1b8	ENSMUSGicjod1	2339.435	0.149236	0.11365	0.505651	ENSMUSGicjod1	222.21	0.03875	0.790925	0.967288
ENSMUSG 455.4804	0.150412	0.045466	0.931301	lr1s1	ENSMUSG 10.54319	0.057183	0.950719	0.918332	lr1b9	ENSMUSGicjod2	158.055	0.02126	0.432657	0.824045	ENSMUSGicjod2	10.21	0.03875	0.790925	0.967288
ENSMUSG 127.378	0.192504	0.132925	0.455594	lr1s2	ENSMUSG 113.1224	0.039884	0.951073	0.708648	lr1b9	ENSMUSGicjod3	118.416	-0.22591	0.099234	0.484121	ENSMUSGicjod3	316.734	0.01033	0.933093	0.97681
ENSMUSG 20.87726	-0.24102	0.628441	NA	lr1s4	ENSMUSG 1871.367	-0.00245	0.981831	0.99756	lr1b9	ENSMUSGicjod3	112.129	0.017038	0.940847	0.993415	ENSMUSGicjod3	87.369	-0.04008	0.586361	0.782586
ENSMUSG 12.18933	-0.12918	0.018137	0.20302	lr1s4	ENSMUSG 12.40076	-0.27099	0.942134	0.933903	lr1b4	ENSMUSGicjod3	110.251	0.154225	0.089597	0.959004	ENSMUSGicjod3	98.784	-0.19637	0.345463	0.910581
ENSMUSG 9.818385	-0.91137	0.187628	NA	lr1s3	ENSMUSG 1347.005	0.138899	0.11201	0.814857	lr1b5	ENSMUSGicjod4	19645.54	0.205497	0.011648	0.155574	ENSMUSGicjod4	17781.81	0.125628	0.201304	0.864412
ENSMUSG 3401	0.017794	0.6384	0.971111	lr1s4	ENSMUSG 12.40242	-0.27105	0.63304	0.95386	lr1b6	ENSMUSGicjod5	1658.65	0.050387	0.161632	0.101866	ENSMUSGicjod5	143.812	0.1247	0.302097	0.895838
ENSMUSG 1049.738	-0.00475	0.960722	0.993991	lr1s2a	ENSMUSG 2466.548	0.690648	0.923895	0.807051	lr1m2a	ENSMUSGicjod5	150.252	0.05789	0.706029	0.938825	ENSMUSGicjod5	228.795	-0.00637	0.712447	0.966887
ENSMUSG 2.189408	-0.05859	0.504392	0.686883	lr1s2	ENSMUSG 2688.28	0.111041	0.436296	0.919879	lr1m2b	ENSMUSGicjod5	238.1567	0.01515	0.922838	0.990671	ENSMUSGicjod5	207.1454	-0.13108	0.442449	0.921554
ENSMUSG 75.84455	-0.46393	0.082291	0.447206	lr1s5	ENSMUSG 12098.22	0.062242	0.656891	0.955567	lr1m2c	ENSMUSGicjod5	17.379	0.3055	0.122	0.449739	ENSMUSGicjod5	146.914	-0.15733	0.470371	0.923219
ENSMUSG 77.94774	-0.10389	7.94e-05	0.005057	lr1s2	ENSMUSG 763.0884	-0.06332	0.656899	0.959676	lr1m2	ENSMUSGicjod5	117.9791	0.44921	0.41942	0.621966	ENSMUSGicjod5	130.307	0.39331	0.04635	0.706142
ENSMUSG 346.4676	-0.12383	0.31857	0.764234	lr202	ENSMUSG 1932.82	-0.00352	0.97479	0.959416	lr1b2	ENSMUSGicjod5	67.95548	-0.26007	0.270641	0.72034	ENSMUSGicjod5	89.31686	0.05452	0.840591	0.982495
ENSMUSG 12.47027	-0.70452	0.00315	0.06974	lr1	ENSMUSG 5221.047	0.052608	0.674585	0.95694	lr1b4	ENSMUSGicjod5	1240.79	-0.09826	0.379656	0.801546	ENSMUSGicjod5	1200.185	0.07783	0.517287	0.930939
ENSMUSG 94.346	-0.32412	0.019022	0.207571	lr1	ENSMUSG 2056.947	-0.24141	0.02829	0.612554	lr1b4	ENSMUSGicjod5	1384.179	0.091295	0.429351	0.826446	ENSMUSGicjod5	1280.524	0.134022	0.298089	0.898538
ENSMUSG 3051.879	-0.16869	0.27182	0.720806	lr1b2	ENSMUSG 165.4222	-0.10949	0.50653	0.944975	lr1b2	ENSMUSGicjod5	1083.501	0.102541	0.004049	0.089309	ENSMUSGicjod5	1022.362	-0.80749	0.699099	0.681706
ENSMUSG 233.244	-0.06917	0.640481	0.916343	lr1m1	ENSMUSG 12944.65	0.124883	0.514351	0.917257	lr1p1	ENSMUSGicjod5	5764.014	-0.03127	0.744046	0.948497	ENSMUSGicjod5	5001.556	-0.12795	0.149965	0.837086
ENSMUSG 12.36446	-0.27812	0.625119	NA	lr1m2	ENSMUSG 2240.184	-0.00911	0.945245	0.949798	lr1p2	ENSMUSGicjod5	43.22354	0.279966	0.316808	0.804031	ENSMUSGicjod5	35.24516	-0.02028	0.938193	0.993731
ENSMUSG 12.7678	0.019111	0.915691	0.988634	lr1b1	ENSMUSG 174.6032	0.814765	0.0091	0.034114	lr1p3	ENSMUSGicjod5	1606.289	0.033461	0.716037	0.94152	ENSMUSGicjod5	1398.443	-0.10893	0.382246	0.917257
ENSMUSG 1248.917	0.020957	0.837087	0.971111	lr1s2a	ENSMUSG 36.6095	0.115892	0.758785	0.971853	lr1p1	ENSMUSGicjod5	109.018	0.174485	0.051803	0.348988	ENSMUSGicjod5	146.0718	0.06799	0.784164	0.90951
ENSMUSG 147.234	-0.1212	0.379592	0.795314	lr1s2b	ENSMUSG 4318.548	0.04194	0.60366	0.917257	lr1p2	ENSMUSGicjod5	174.241	0.157732	0.088168	0.452362	ENSMUSGicjod5	144.265	-0.0562	0.52662	0.89416
ENSMUSG 2201.925	-0.03196	0.776489	0.955658	lr1b1	ENSMUSG 51.56882	0.543998	0.109333	0.915853	lr1p1p	ENSMUSGicjod5	161.811	0.056238	0.627335	0.912961	ENSMUSGicjod5	862.741	-0.15739	0.27961	0.868507
ENSMUSG 58.806	0.05146	0.694559	0.9343	lr1b1	ENSMUSG 110.0569	0.041489	0.733494	0.989641	lr1p1p1	ENSMUSGicjod5	712.604	0.275228	0.039244	0.350997	ENSMUSGicjod5	688.3874	0.425202	0.015894	0.558472
ENSMUSG 962.5801	0.234124	0.038183	0.301526	lr1m1a	ENSMUSG 483.4475	0.241562	0.015032	0.804969	lr1p1p2	ENSMUSGicjod5	22.8351	-0.3818	0.0112	0.346957	ENSMUSGicjod5	130.0401	0.075875	0.683202	0.958678
ENSMUSG 1549.367	0.019512	0.230595	0.677495	lr1b2	ENSMUSG 4703.157	-0.10745	0.63825	0.959676	lr1p2	ENSMUSGicjod5	230.241	0.03851	0.75376	0.951587	ENSMUSGicjod5	420.877	0.04397	0.64835	0.915734
ENSMUSG 6490.319	-0.38292	0.008385	0.133221	lr1b1	ENSMUSG 1662.261	-0.220874	0.045126	0.693595	lr1m2	ENSMUSGicjod5	417.1923	0.03357	0.797296	0.951587	ENSMUSGicjod5	430.8111	0.303321	0.011098	0.627963
ENSMUSG 505.4384	0.080355	0.464539	0.841387	lr1b2	ENSMUSG 3797.985	-0.20258	0.075799	0.762852	lr1b2	ENSMUSGicjod5	108.964	0.09323	0.743474	0.949556	ENSMUSGicjod5	994.8977	0.003077	0.727878	0.966887
ENSMUSG 480.3769	-0.03124	0.888689	0.988434	lr1m1	ENSMUSG 5276.969	0.081473	0.470328	0.913239	lr1m1a1p	ENSMUSGicjod5	285.019	0.171696	0.052049	0.350227	ENSMUSGicjod5	2506.337	0.141035	0.334077	0.907907
ENSMUSG 141.79	0.03179	0.90155	0.930299	NA	ENSMUSG 710.806	-0.107771	0.64004	0.960406	lr1m2	ENSMUSGicjod5	452.7039	-0.09591	0.494452	0.93282	ENSMUSGicjod5	142.877	0.0562	0.52662	0.89416
ENSMUSG 84.36718	-0.61959	0.008216	0.216518	lr1m1	ENSMUSG 219.9256	-0.35271	0.331083	0.917257	lr1p1	ENSMUSGicjod5	18.014	0.294761	0.602801	0.928781	ENSMUSGicjod5	1556.68	-0.20383	0.094042	0.791074
ENSMUSG 74.03265	-0.286039	0.264975	0.715962	lr1b2	ENSMUSG 695.5182	0.208184	0.324645	0.905257	lr1m2a	ENSMUSGicjod5	66.98046	0.151	0.48841	0.859092	ENSMUSGicjod5	80.9124	-0.08765	0.729196	0.966913
ENSMUSG 601.1089	-0.37072	0.005514	0.099488	lr1b4	ENSMUSG 1206.36	0.016148	0.882343	0.99864	lr1b4	ENSMUSGicjod5	761.8117	0.173276	0.110288	0.500944	ENSMUSGicjod5	67.13713	0.093247	0.448626	0.925451
ENSMUSG 423.8221	-0.44838	0.033035	0.279795	lr1b4	ENSMUSG 1195.547	0.095556	0.472511	0.932132	lr1b4e2	ENSMUSGicjod5	158.968	0.194144	0.18299	0.62047	ENSMUSGicjod5	158.745	-0.1008	0.9006	0.990558
ENSMUSG 217.6777	-0.54874	0.0006	0.900047	lr1b4	ENSMUSG 241.318	-0.07706	0.93901	0.9301	lr1b4e3	ENSMUSGicjod5	123.6219	0.031246	0.59646	0.937878	ENSMUSGicjod5	107.6139	0.04424	0.951988	0.99368
ENSMUSG 1725.605	-0.14635	0.360247	0.971947	lr1b4e	ENSMUSG 262.0766	-0.441994	0.905866	0.621805	lr1b4	ENSMUSGicjod5	129.189	0.05805	0.555195	0.888411	ENSMUSGicjod5	1342.447	-0.0479	0.67619	0.95694
ENSMUSG 795.326	-0.144445	0.298285	0.74698	lr1b4	ENSMUSG 137.0748	0.215878	0.315878	0.832641	lr1b4	ENSMUSGicjod5	3431.792	0.147043	0.433467	0.77519	ENSMUSGicjod5	308.247	0.060381	0.611166	0.950195
ENSMUSG 243.3225	0.326582	0.19648	0.635942	lr1b4e	ENSMUSG 197.0129	0.1242	0.44559	0.917257	lr1b4	ENSMUSGicjod5	108.974	-0.06499	0.43355	0.836798	ENSMUSGicjod5	187.294	-0.05206	0.659984	0.950205
ENSMUSG 348.4569	-0.4926	0.03799	0.717114	lr1b4p	ENSMUSG 1588.132	-0.005913	0.47984	0.96406	lr1b4e2	ENSMUSGicjod5	1491.812	0.04711	0.388163	0.89515	ENSMUSGicjod5	147.82	-0.05206	0.659984	0.950205
ENSMUSG 14.13357	0.204087	0.855553	NA	lr1b4	ENSMUSG 143.31	0.055311	0.622286	0.953234	lr1b4	ENSMUSGicjod5	472.5702	0.121224	0.358605	0.789759	ENSMUSGicjod5	422.1386	0.060333	0.688307	0.957047
ENSMUSG 12.84717	-0.13736	0.824979	NA	lr1b4e	ENSMUSG 273.7184	0.176368	0.392973	0.917257	lr1b4	ENSMUSGicjod5	335.1734	0.035774	0.7756						



ENSMUSG 150.9098 -0.31249 0.079646 0.435701 Kataln2  
ENSMUSG 1905.898 0.146613 0.173623 0.609084 Kamb1  
ENSMUSG 307.1282 -0.168915 0.074062 0.724254 Kamb1  
ENSMUSG 818.4567 -0.03633 0.073776 0.925281 Kamb1  
ENSMUSG 96.76352 -0.37484 0.11416 0.508818 Kazaal1  
ENSMUSG 2773.562 -0.07141 0.388183 0.809515 Kna  
ENSMUSG 4562.439 -0.00039 0.072076 0.941057 Kbbel1  
ENSMUSG 108.41 -0.02665 0.791152 0.959461 Kbbd2  
ENSMUSG 135.8141 -0.14277 0.425734 0.824898 Kbbd3  
ENSMUSG 528.3477 -0.01819 0.894647 0.844152 Kbbd4  
ENSMUSG 15.5574 -0.04892 0.083958 Kna  
ENSMUSG 432.7218 -0.00931 0.931748 0.934151 Kbbd7  
ENSMUSG 104.5566 -0.12748 0.52988 0.878883 Kbbd8  
ENSMUSG 224.964 -0.00581 0.943325 0.993415 Kcm1f  
ENSMUSG 497.013 -0.33023 0.158918 0.586112 Kna1  
ENSMUSG 8303.129 -0.03565 0.777762 0.955272 Kna2  
ENSMUSG 41.90034 -0.33427 0.1318862 0.764629 Kna3  
ENSMUSG 376.953 -0.65187 7.41E-05 0.005296 Kna4  
ENSMUSG 143.1092 -0.72055 0.000218 0.011384 Kna5  
ENSMUSG 2881.749 -0.28117 0.049749 0.339723 Kna6  
ENSMUSG 1239.678 -0.29154 0.061192 0.381822 Kna6b1  
ENSMUSG 19646.93 -0.158976 0.093542 0.469992 Kna6b  
ENSMUSG 1463.721 0.039537 0.792396 0.959461 Kna6b3  
ENSMUSG 7161.145 -0.15575 0.065678 0.176789 Kna6b  
ENSMUSG 411.1567 -0.43563 0.01 0.142653 Kna6b  
ENSMUSG 4790.6747 -0.33472 0.013865 0.172602 Kna6b  
ENSMUSG 2330.029 -0.26404 0.067893 0.403231 Knc2  
ENSMUSG 378.679 -0.30116 0.205635 0.368432 Knc3  
ENSMUSG 2769.608 -0.00001 0.943488 0.939031 Knc4  
ENSMUSG 448.8662 -0.20122 0.163968 0.548469 Kncd1  
ENSMUSG 2003.257 -0.48375 0.000293 0.014095 Kncd2  
ENSMUSG 1922.687 -0.12599 0.376221 0.801127 Kncd3  
ENSMUSG 29.89429 -0.02172 0.74095 0.944233 Kncd4  
ENSMUSG 47.0732 -0.27961 0.767623 0.955658 Kncd5  
ENSMUSG 50.62461 -0.75767 0.016996 0.194647 Kne4  
ENSMUSG 634.746 -0.2932 0.059674 0.475095 Kne5  
ENSMUSG 3862.337 -0.22362 0.70607 0.959277 Kncf1  
ENSMUSG 1229.475 0.005636 0.96724 0.995977 Kncf2  
ENSMUSG 281.1929 0.050727 0.751248 0.950191 Kncf3  
ENSMUSG 598.6193 -0.09521 0.451288 0.830415 Kncf4  
ENSMUSG 2052.4 -0.49743 0.072768 0.684455 Kncf5  
ENSMUSG 979.3221 -0.25116 0.012177 0.071882 Kncf6  
ENSMUSG 754.600 -0.107025 0.326924 0.701382 Kncf7  
ENSMUSG 502.7499 -0.17957 0.198438 0.633837 Kncf8  
ENSMUSG 148.5453 -0.46414 0.035521 0.291008 Kncf9  
ENSMUSG 77.12123 -0.04817 0.884817 0.939031 Kncf10  
ENSMUSG 1767.048 -0.4643 0.004914 0.029578 Kncf11  
ENSMUSG 18.82308 -0.29407 0.549853 Kna Kncf12  
ENSMUSG 572.0791 0.015468 0.906362 0.987809 Kncf13  
ENSMUSG 400.612 -0.00001 0.943488 0.939031 Kncf14  
ENSMUSG 6790.337 -0.22012 0.014884 0.177206 Kncf15  
ENSMUSG 674.7156 -0.08 0.594 0.908899 Kncf16  
ENSMUSG 37914.17 0.073547 0.563624 0.88899 Kncf17  
ENSMUSG 1487.822 -0.15956 0.026595 0.173397 Kncf18  
ENSMUSG 299.4161 -0.04357 0.793009 0.95847 Kncf19  
ENSMUSG 86.6431 -0.11278 0.975791 0.95106 Kncf20  
ENSMUSG 161.0025 -0.02082 0.912322 0.988483 Kncf21  
ENSMUSG 4417.855 0.081438 0.546452 0.884974 Kncf22  
ENSMUSG 391.1178 -0.25269 0.054295 0.011647 Kncf23  
ENSMUSG 2987.592 -0.5012 0.000292 0.014095 Kncf24  
ENSMUSG 3935.419 -0.40667 0.002151 0.053771 Kncf25  
ENSMUSG 20.49057 0.026497 0.548151 Kna Kncf26  
ENSMUSG 305.8444 -0.19379 0.000765 0.914077 Kncf27  
ENSMUSG 184.8713 -0.062 0.900621 0.985313 Kncf28  
ENSMUSG 4790.645 -0.12331 0.396351 0.811174 Kncf29  
ENSMUSG 4878.427 -0.27549 0.048572 0.373113 Kncf30  
ENSMUSG 345.1765 -0.2064 0.257031 0.708297 Kncf31  
ENSMUSG 319.3064 0.089122 0.707552 0.93940 Kncf32  
ENSMUSG 163.4976 -0.25707 0.172778 0.683661 Kncf33  
ENSMUSG 3633.172 -0.06767 0.558164 0.888427 Kncf34  
ENSMUSG 928.1854 -0.11717 0.173018 0.683661 Kncf35  
ENSMUSG 527.8389 -0.10482 0.043424 0.745251 Kncf36  
ENSMUSG 68.20794 -0.42264 0.106071 0.493403 Kncf37  
ENSMUSG 222.6716 -0.22053 0.259745 0.709951 Kncf38  
ENSMUSG 2537.659 -0.12891 0.230891 0.673096 Kncf39  
ENSMUSG 7433.013 -0.00001 0.943488 0.939031 Kncf40  
ENSMUSG 36.11095 -0.59425 0.006022 0.987698 Kncf41  
ENSMUSG 60.6116 -0.3609 0.19253 0.631514 Kncf42  
ENSMUSG 2563.306 0.048155 0.617662 0.910872 Kncf43  
ENSMUSG 31.15928 -0.13098 0.00001 0.943488 0.939031 Kncf44  
ENSMUSG 172.6612 0.173492 0.321714 0.786451 Kncf45  
ENSMUSG 829.5802 0.021196 0.879125 0.981438 Kncf46  
ENSMUSG 2165.793 0.040048 0.016666 0.016666 Kncf47  
ENSMUSG 1419.456 -0.21962 0.102866 0.534201 Kncf48  
ENSMUSG 14.36553 0.148029 0.00001 0.943488 0.939031 Kncf49  
ENSMUSG 32.1937 -0.05918 0.886056 0.883008 Kncf50  
ENSMUSG 783.0025 0.145005 0.374474 0.804045 Kncf51  
ENSMUSG 12592.89 0.045759 0.73383 0.942575 Kncf52  
ENSMUSG 415.769 -0.19379 0.000765 0.914077 Kncf53  
ENSMUSG 555.2125 0.19182 0.210924 0.714584 Kncf54  
ENSMUSG 4007.76 -0.3902 0.011376 0.153509 Kncf55  
ENSMUSG 686.7172 -0.28117 0.073713 0.418181 Kncf56  
ENSMUSG 683.9255 0.00001 0.943488 0.939031 Kncf57  
ENSMUSG 173.7231 0.030693 0.857694 0.974667 Kncf58  
ENSMUSG 4333.205 0.06317 0.628486 0.934011 Kncf59  
ENSMUSG 415.1732 -0.36373 0.027759 0.255176 Kncf60  
ENSMUSG 75.24098 0.034947 0.882051 0.826069 Kncf61  
ENSMUSG 1785.441 -0.58008 0.00001 0.943488 0.939031 Kncf62  
ENSMUSG 114.6459 0.949096 0.077114 0.429695 Kncf63  
ENSMUSG 2049.559 0.086205 0.323693 0.775602 Kncf64  
ENSMUSG 1752.598 0.002516 0.071838 0.954994 Kncf65  
ENSMUSG 78.11911 0.02656 0.079462 0.678599 Kncf66  
ENSMUSG 2235.49 0.062566 0.638542 0.917333 Kncf67  
ENSMUSG 277.6524 0.173725 0.468528 0.845424 Kncf68  
ENSMUSG 3861.158 0.106121 0.313448 0.780368 Kncf69  
ENSMUSG 245.0718 0.04162 0.00001 0.943488 0.939031 Kncf70  
ENSMUSG 637.0288 0.128107 0.229745 0.677338 Kncf71  
ENSMUSG 124.5018 -0.12813 0.182793 0.877354 Kncf72  
ENSMUSG 709.114 -0.02119 0.796379 0.961006 Kncf73  
ENSMUSG 542.8666 0.034522 0.763202 0.957871 Kncf74  
ENSMUSG 2435.746 -0.15567 0.00001 0.943488 0.939031 Kncf75  
ENSMUSG 2419.09 0.114109 0.188782 0.627678 Kncf76  
ENSMUSG 567.1588 0.324923 0.051145 0.346957 Kncf77  
ENSMUSG 2726.885 0.152289 0.116618 0.548587 Kncf78  
ENSMUSG 303.3385 -0.04016 0.725521 0.944749 Kncf79  
ENSMUSG 1778.669 0.077865 0.494943 0.931811 Kncf80  
ENSMUSG 724.0552 0.01886 0.869172 0.977394 Kncf81  
ENSMUSG 337.0354 0.004449 0.972752 0.989585 Kncf82  
ENSMUSG 75.3021 0.00001 0.943488 0.939031 Kncf83  
ENSMUSG 70.9528 -0.02556 0.850012 0.972638 Kncf84  
ENSMUSG 2681.914 -0.42079 0.000463 0.019662 Kncf85  
ENSMUSG 934.5752 -0.51181 0.000278 0.011828 Kncf86  
ENSMUSG 44.38488 -0.48136 0.097025 0.747735 Kncf87  
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ENSMUSG 355.7479 -0.15093 0.258459 0.956133 Lamc5  
ENSMUSG 1276.909 0.059835 0.512375 0.879095 Lamc1  
ENSMUSG 9845.432 -0.14329 1.49636 0.847433 Lamc2  
ENSMUSG 1609.004 0.177186 0.16395 0.594869 Lamc1  
ENSMUSG 9613.196 0.139329 0.127456 0.535223 Lamc1  
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ENSMUSG 1205.506 -0.28146 0.153968 0.589091 Lamc1  
ENSMUSG 1725.193 0.018775 0.854957 0.973665 Lamc1  
ENSMUSG 507.4341 0.015751 0.909861 0.89794 Lamc1  
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ENSMUSG 2519.715 -0.1151 0.182265 0.619931 Lamc1  
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ENSMUSG 339.2024 0.01189 0.46252 0.9365 Lamc1  
ENSMUSG 437.176 -0.40421 0.04213 0.236291 Lamc1  
ENSMUSG 369.7697 0.032257 0.815543 0.966133 Lamc5  
ENSMUSG 70.97656 -0.00472 0.964809 0.997515 Lamc5  
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ENSMUSG 110.8873 -0.28587 0.204645 0.645534 Lamc1  
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ENSMUSG 127.7213 0.06375 0.782001 0.943455 Lamc2  
ENSMUSG 92.11568 0.270608 0.283802 0.724203 Lamc1  
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ENSMUSG 195.5843 -0.08704 0.564673 0.880344 Lamc2  
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ENSMUSG 1362.286 -0.24511 0.820634 0.47E-10 Lamc2  
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ENSMUSG 1522.293 0.06139 0.651523 0.914296 Lmr52  
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ENSMUSG 12.4253 0.124253 0.534512 Na Mf304  
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ENSMUSG 14.41752 0.30495 0.531166 Na Mf374b  
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ENSMUSG 11.35464 0.40204 0.51368 Na Mf7220  
ENSMUSG 20.21794 -0.38499 0.848268 Na Mf762  
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ENSMUSG 1639.218 -0.00151 0.988131 0.999109 Mf9-3hg  
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ENSMUSG 871.3553 0.194369 0.141602 0.558606 Mico1  
ENSMUSG 632.0111 0.03125 0.058728 0.373994 Mico2  
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ENSMUSG 539.796 -0.2292 0.41234 0.558134 Mm1p6  
ENSMUSG 815.846 -0.24469 0.085895 0.451489 Mm1p  
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ENSMUSG 84.14888 -0.27873 0.10272 0.488169 Mm1s  
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ENSMUSG 2730.619 0.11642 0.247034 0.69576 Mm1  
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ENSMUSG 379.776 0.11571 0.142968 0.561716 Mm1p  
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ENSMUSG 1376.674 0.081617 0.389155 0.928648 Mm1p  
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ENSMUSG 152.746 0.13505 0.403675 0.917527 NA  
ENSMUSG 9.25244 0.15367 0.931883 0.97825 NA  
ENSMUSG 124.4557 -0.03278 0.884629 0.98968 NA  
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ENSMUSG 277.7804 -0.64591 0.10134 0.80454 NA  
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ENSMUSG 28.78991 -0.36815 0.136438 0.909772 NA  
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ENSMUSG 19.68654 -0.24004 0.889038 0.944975 NA  
ENSMUSG 10.26027 -0.09131 0.890933 NA  
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ENSMUSG 22.99301 0.404416 0.236687 0.905071 NA  
ENSMUSG 13.7745 -0.19772 0.970193 0.952014 NA  
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ENSMUSG 47.42925 -0.43159 0.169633 0.848086 NA  
ENSMUSG 17.81868 -0.47492 0.311569 0.900031 NA  
ENSMUSG 44.3734 0.643029 0.73648 NA  
ENSMUSG 11.324 0.855526 0.134569 NA  
ENSMUSG 26.24538 -0.19578 0.297723 0.885838 NA  
ENSMUSG 9.625461 -0.14566 0.892617 NA  
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ENSMUSG 17.42407 -0.42702 0.365215 0.914623 NA  
ENSMUSG 8.30776 -0.12781 0.0174 NA  
ENSMUSG 14.96034 0.27793 0.67014 0.949917 NA  
ENSMUSG 276.7099 -0.41639 0.05222 0.712974 NA  
ENSMUSG 13.4149 0.376832 0.501534 0.927825 NA  
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ENSMUSG 8.760287 -0.02026 0.983623 0.97825 NA  
ENSMUSG 19.4549 -0.10333 0.814786 0.979198 NA  
ENSMUSG 15.88936 0.374542 0.903078 0.977216 NA  
ENSMUSG 218.2092 -0.58413 0.009502 0.071581 NA  
ENSMUSG 22.78605 0.36149 0.965035 0.917527 NA  
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ENSMUSG 46.97974 0.56935 0.92497 0.764642 NA  
ENSMUSG 11.98862 -0.30289 0.81149 0.95083 NA  
ENSMUSG 21.09712 0.60778 0.1732 0.923239 NA  
ENSMUSG 15.29854 -0.21222 0.662467 0.90626 NA  
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ENSMUSG 203.6108 -0.68443 8.09E-23 2.0E-19 NA  
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ENSMUSG 18.2161 -0.25986 0.954059 0.94444 NA  
ENSMUSG 9.98286 -0.116613 0.67426 0.94444 NA  
ENSMUSG 233.654 -0.18919 0.309144 0.895838 NA  
ENSMUSG 225.5127 0.063387 0.19244 0.966887 NA  
ENSMUSG 62.9583 -0.01955 0.964621 0.994788 NA  
ENSMUSG 267.3648 -0.26611 0.09648 0.79631 NA  
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ENSMUSG 270.584 0.00982 0.957419 0.994788 NA  
ENSMUSG 18.35068 0.004709 0.950128 0.99264 NA  
ENSMUSG 78.2429 -0.36707 0.170818 0.842157 NA  
ENSMUSG 26.15356 0.21789 0.944027 0.97555 NA  
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ENSMUSG 11.0494 -0.19011 0.767078 NA  
ENSMUSG 26.79412 -0.128479 0.98632 NA  
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ENSMUSG 13.7273 -0.74459 0.03176 0.46927 NA  
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ENSMUSG 24.89874 -0.97355 0.230421 0.907388 NA  
ENSMUSG 50.69802 0.294237 0.340625 0.909772 NA  
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ENSMUSG 70.21034 0.676341 0.70303 0.458202 NA  
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ENSMUSG 16.4241 -0.46485 0.731908 0.916995 NA  
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NSM2016	31.9363	0.6083	0.8542	0.9741	NA
NSM2017	17.16705	-0.19216	0.66835	NA	NA
NSM2018	22.72055	0.87968	0.9121	0.94726	NA
NSM2019	72.77079	0.43496	0.31886	NA	NA
NSM2020	9.92879	0.16771	0.74966	NA	NA
NSM2021	10.22466	0.12852	0.97469	NA	NA
NSM2022	13.21883	0.17875	0.628	0.94887	NA
NSM2023	17.44661	0.87968	0.87968	0.87968	NA
NSM2024	18.10656	-0.02257	0.88575	NA	NA
NSM2025	17.44661	0.13469	0.75335	NA	NA
NSM2026	34.48839	0.10305	0.95828	0.93874	NA
NSM2027	17.44661	0.87968	0.87968	0.87968	NA
NSM2028	8.66684	0.52238	0.39675	NA	NA
NSM2029	8.98405	0.16243	0.32474	NA	NA
NSM2030	38.813	0.76681	0.54087	0.55792	NA
NSM2031	17.44661	0.87968	0.87968	0.87968	NA
NSM2032	11.66084	-0.1167	0.76509	NA	NA
NSM2033	389.7218	-0.1519	0.76877	0.95431	NA
NSM2034	65.85481	0.31254	0.25729	0.70843	NA
NSM2035	17.44661	0.87968	0.87968	0.87968	NA
NSM2036	17.7817	0.27772	0.90165	NA	NA
NSM2037	43.85485	0.03903	0.89739	0.94851	NA
NSM2038	0.20483	0.94965	0.72692	NA	NA
NSM2039	17.44661	0.87968	0.87968	0.87968	NA
NSM2040	13.34136	0.86593	0.94101	NA	NA
NSM2041	21.1807	0.02838	0.91704	0.98891	NA
NSM2042	11.19618	0.86593	0.91936	NA	NA
NSM2043	13.34136	0.86593	0.94101	NA	NA
NSM2044	13.34136	0.86593	0.94101	NA	NA
NSM2045	53.54706	0.37447	0.23107	0.67929	NA
NSM2046	9.61074	0.13812	0.53817	NA	NA
NSM2047	80.058	0.04691	0.97871	0.97428	NA
NSM2048	13.34136	0.86593	0.94101	NA	NA
NSM2049	13.16211	-0.06221	0.39919	NA	NA
NSM2050	21.7507	-0.2293	0.94215	0.91595	NA
NSM2051	69.4867	0.02754	0.98356	0.77698	NA
NSM2052	13.34136	0.86593	0.94101	NA	NA
NSM2053	133.5301	0.24763	0.40442	0.81633	NA
NSM2054	10.17289	0.14212	0.68187	NA	NA
NSM2055	20.51503	-0.04577	0.900274	NA	NA
NSM2056	50.40145	0.87968	0.87968	0.87968	NA
NSM2057	50.40145	0.87968	0.87968	0.87968	NA
NSM2058	15.18342	-0.07187	0.86163	NA	NA
NSM2059	10.29827	0.02987	0.960011	NA	NA
NSM2060	13.34136	0.86593	0.94101	NA	NA
NSM2061	23.5873	0.12118	0.95879	0.93874	NA
NSM2062	9.25613	-0.02948	0.85676	NA	NA
NSM2063	30.98292	0.91731	0.56723	0.83774	NA
NSM2064	17.44661	0.87968	0.87968	0.87968	NA
NSM2065	10.9592	0.77634	0.86704	NA	NA
NSM2066	17.83221	-0.16575	0.70678	NA	NA
NSM2067	14.7108	0.00706	0.60986	NA	NA
NSM2068	17.44661	0.87968	0.87968	0.87968	NA
NSM2069	10.29827	0.02987	0.960011	NA	NA
NSM2070	12.04747	-0.08261	0.54861	NA	NA
NSM2071	296.308	0.28649	0.53774	0.82545	NA
NSM2072	50.23834	0.0842	0.55101	0.88608	NA
NSM2073	41.7554	0.17489	0.5752	0.94898	NA
NSM2074	15.18342	-0.07187	0.86163	NA	NA
NSM2075	9.56682	-0.08688	0.38023	NA	NA
NSM2076	10.5166	-0.8008	0.13605	NA	NA
NSM2077	85.0968	0.02577	0.88365	0.	

NSM58	22.86675	0.322227	0.44457	0.91734	NA
NSM59	206.2294	0.17721	0.281305	0.5678	NA
NSM60	10.69158	0.000002	0.000002	0.000002	NA
NSM61	60.90158	0.000022	0.000002	0.000002	NA
NSM62	95.49158	0.000002	0.000002	0.000002	NA
NSM63	95.49158	0.000002	0.000002	0.000002	NA
NSM64	28.58361	0.038754	0.92097	0.96484	NA
NSM65	37.99878	0.278794	0.88445	0.917257	NA
NSM66	11.51506	0.048454	0.826682	0.900035	NA
NSM67	25.0838	0.16475	0.12019	0.80341	NA
NSM68	34.74463	0.054168	0.21958	0.61616	NA
NSM69	11.51506	0.048454	0.826682	0.900035	NA
NSM70	14.79291	-0.084181	0.72045	0.96687	NA
NSM71	40.71314	-0.04729	0.16261	0.87724	NA
NSM72	178.8009	-0.15429	0.37683	0.515491	NA
NSM73	37.736	0.05765	0.876258	0.97984	NA
NSM74	28.5972	0.525235	0.17143	0.846973	NA
NSM75	13.05634	-0.1103	0.876708	0.958884	NA
NSM76	11.51506	0.048454	0.826682	0.900035	NA
NSM77	25.9877	0.086664	0.11592	0.92586	NA
NSM78	13.32692	-0.17704	0.8004	0.320634	NA
NSM79	23.6279	0.707864	0.857136	0.988884	NA
NSM80	14.70594	-0.056793	0.279554	0.982356	NA
NSM81	57.45355	-0.25633	0.333043	0.97007	NA
NSM82	12.17985	-0.231703	0.69381	0.967067	NA
NSM83	11.51506	0.048454	0.826682	0.900035	NA
NSM84	37.9747	0.22669	0.93494	0.920047	NA
NSM85	18.1109	0.51889	0.30942	0.88583	NA
NSM86	10.16046	0.0478	0.23003	NA	NA
NSM87	35.58	0.11319	0.12142	0.81374	NA
NSM88	16.08712	-0.30674	0.53829	0.971786	NA
NSM89	31.97701	-0.5518	0.15549	0.82379	NA
NSM90	45.3591	-0.58669	0.08074	0.77799	NA
NSM91	16.08712	-0.30674	0.53829	0.971786	NA
NSM92	61.4203	-0.42418	0.11421	0.811037	NA
NSM93	25.8	0.0182	0.0104	0.4184	NA
NSM94	20.49457	-0.03801	0.34908	0.911651	NA
NSM95	16.08712	-0.30674	0.53829	0.971786	NA
NSM96	68.7839	-0.14943	0.95829	0.97984	NA
NSM97	51.74317	-0.284	0.34004	0.507972	NA
NSM98	36.4768	-0.35803	0.12492	0.92921	NA
NSM99	15.5742	-0.03036	0.94709	0.97984	NA
NSM100	14.79291	0.073794	0.505138	0.92785	NA
NSM101	4.96077	-0.12719	0.84307	NA	NA
NSM102	14.79291	0.073794	0.505138	0.92785	NA
NSM103	11.51506	0.048454	0.826682	0.900035	NA
NSM104	40.0314	0.23005	0.48213	0.942578	NA
NSM105	21.1188	-0.02676	0.56678	0.940416	NA
NSM106	11.51506	0.048454	0.826682	0.900035	NA
NSM107	12.25758	-0.04789	0.84745	0.925427	NA
NSM108	15.5742	0.10299	0.71687	0.958684	NA
NSM109	9.87374	-0.8329	0.24073	NA	NA
NSM110	247.1292	0.07194	0.448578	0.52202	NA
NSM111	26.76014	-0.07194	0.448578	0.52202	NA
NSM112	66.0161	-0.2471	0.99416	0.80316	NA
NSM113	13.6764	0.77478	0.53605	0.92958	NA
NSM114	19.191	0.34455	0.08359	0.77681	NA
NSM115	8.13103	0.26267	0.76517	NA	NA
NSM116	24.94524	0.01531	0.9324	0.99306	NA
NSM117	19.191	0.34455	0.08359	0.77681	

[illegible]

25.84587	-0.27799	0.31847	0.91491
25.85132	-0.19938	0.37031	0.93475
66.46817	-0.68081	0.78973	0.97893
58.66765	-0.3402	0.26249	0.88534
19.11311	-0.04861	0.07899	0.98867
18.34442	-0.49454	0.28043	0.89242
64.13272	-0.57422	0.07862	0.77321
18.34442	-0.38901	0.07899	0.98867
26.55456	-0.20344	0.64001	0.94732
14.22837	-0.19134	0.66848	0.97426
9.686808	0.040452	0.33175	0.91581
17.24487	-0.33123	0.47739	0.93239
18.34512	-0.08059	0.27924	0.96984
9.552482	-0.88078	0.89074	0.94174
18.34512	-0.33123	0.47739	0.93239
9.861103	-0.50514	0.41538	0.91384
54.33542	-0.27327	0.15759	0.857801
29.4348	0.202101	0.58846	0.94975
66.46817	-0.68081	0.78973	0.97893
9.85308	-0.47923	0.64162	0.96954
20.01034	-0.08626	0.42381	0.912757
65.00428	-0.18961	0.42533	0.92316
18.34512	-0.33123	0.47739	0.93239
39.34749	0.302112	0.38282	0.912757
19.4275	0.25719	0.64812	0.95422
20.14666	-0.04063	0.296304	0.93906
18.34512	-0.33123	0.47739	0.93239
14.76334	0.252794	0.95959	0.885708
9.98414	0.316324	0.61053	0.91384
17.24487	-0.33123	0.47739	0.86104
10.48887	-0.15014	0.77533	0.91384
18.34512	-0.33123	0.47739	0.93239
35.14416	-0.18246	0.61268	0.95143
9.123455	-0.45041	0.40708	0.91384
20.02347	-0.2111	0.50758	0.94348
65.00428	-0.18961	0.42533	0.92316
18.34512	-0.33123	0.47739	0.93239
18.57022	0.50591	0.98056	0.99158
8.50217	0.500836	0.49827	0.91384
46.67642	-0.38827	0.00428	0.34549
18.34512	-0.33123	0.47739	0.93239
42.17307	-0.63822	0.05923	0.79429
24.25176	0.223202	0.50806	0.946676
10.54661	-0.34351	0.47029	0.91384
18.34512	-0.33123	0.47739	0.93239
29.89992	-0.78598	0.67987	0.98024
9.11511	-0.27677	0.62988	0.91384
68.11736	-0.07213	0.79549	0.97681
18.34512	-0.33123	0.47739	0.93239
46.7802	-0.73433	0.08818	0.78779
19.58017	-0.65185	0.48068	0.836241
9.544236	-0.64048	0.53093	0.91384
37.45143	-0.24567	0.79959	0.91384
12.567	0.491914	0.98175	0.912757
20.76843	-0.09124	0.91811	0.99913
39.08917	-0.5647	0.10862	0.80469
17.8556	-0.3086	0.18989	0.85755
46.7802	-0.73433	0.08818	0.78779
96.40818	-0.05195	0.06652	0.74037
26.17938	0.124491	0.78549	0.91858
11.59644	-0.04435	0.93561	0.94798
46.7802	-0.73433	0.08818	0.78779
10.6684	-0.171896	0.41563	0.912757
53.16293	-0.1624	0.11923	0.84748
23.2489	-0.569126	0.9499	0.863016
12.2147	-0.1624	0.11923	0.84748
19.20088	-0.02654	0.95461	0.94798
33.98172	-0.15044	0.66258	0.956205
37.2874	-0.4087	0.78188	0.68057
18.34512	-0.33123	0.47739	0.93239
9.217487	-0.20538	0.28046	0.91384
19.0829	-0.1335	0.54797	0.938063
11.2529	0.29163	0.79298	0.91384
18.34512	-0.33123	0.47739	0.93239
60.22566	-0.013289	0.96246	0.99624
24.14465	-0.25129	0.28149	0.859104
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18.34512			



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ENSMUSG 102.7133	0.041511	0.9304	0.986246	NA
ENSMUSG 80.78156	0.028878	0.91394	0.988483	NA
ENSMUSG 80.78156	0.028878	0.91394	0.988483	NA
ENSMUSG 102.7797	-0.59079	0.31489	NA	0.96372
ENSMUSG 45.7091	0.2484	0.37767	0.801561	NA
ENSMUSG 67.96493	-0.06235	0.80031	0.962169	NA
ENSMUSG 67.96493	-0.06235	0.80031	0.962169	NA
ENSMUSG 150.5015	0.396249	0.328664	0.773233	NA
ENSMUSG 72.60072	-0.13946	-0.562133	0.891644	NA
ENSMUSG 18.28032	-0.15242	0.725399	NA	NA
ENSMUSG 18.28032	-0.15242	0.725399	NA	NA
ENSMUSG 75.09139	-0.29721	-0.431387	0.819895	NA
ENSMUSG 75.09139	-0.29721	-0.431387	0.819895	NA
ENSMUSG 17.35825	-0.003288	0.986157	0.998326	NA
ENSMUSG 17.35825	-0.003288	0.986157	0.998326	NA
ENSMUSG 14.29692	-0.74744	0.262299	NA	NA
ENSMUSG 8.045937	0.322694	0.612929	NA	NA
ENSMUSG 10.03513	-0.140608	0.065471	NA	NA
ENSMUSG 10.03513	-0.140608	0.065471	NA	NA
ENSMUSG 20.7575	-0.06897	0.892929	NA	0.53610
ENSMUSG 37.76337	-0.0836	0.81421	0.969889	NA
ENSMUSG 33.81982	-0.285706	0.398781	0.812878	NA
ENSMUSG 33.81982	-0.285706	0.398781	0.812878	NA
ENSMUSG 19.50228	-0.186138	0.021218	NA	NA
ENSMUSG 72.24839	-0.23993	-0.081879	0.821966	NA
ENSMUSG 19.55174	-0.82671	0.05051	NA	NA
ENSMUSG 19.55174	-0.82671	0.05051	NA	NA
ENSMUSG 24.95055	0.195725	0.000291	0.092329	NA
ENSMUSG 42.02098	-0.23894	-0.487793	0.845032	NA
ENSMUSG 18.1835	-0.23918	0.867818	NA	NA
ENSMUSG 34.798	-0.20793	-0.38007	0.756439	NA
ENSMUSG 15.26055	0.36105	0.460915	NA	NA
ENSMUSG 31.55691	-0.39032	0.314852	0.762059	NA
ENSMUSG 31.55691	-0.39032	0.314852	0.762059	NA
ENSMUSG 17.37466	0.32344	0.37333	0.800133	NA
ENSMUSG 19.57427	-0.244875	0.58074	NA	NA
ENSMUSG 20.57171	-0.315776	0.508781	NA	NA
ENSMUSG 44.74315	-0.72085	0.044753	0.374749	NA
ENSMUSG 44.74315	-0.72085	0.044753	0.374749	NA
ENSMUSG 52.3108	-0.479295	0.0		

ENMUSG12	13.5083	0.81892	0.77654	0.75717	NA
ENMUSG16	36.0081	-0.07407	0.87193	0.98176	NA
ENMUSG12	12.48012	-0.3022	0.5884	0.94975	NA
ENMUSG19	29.5075	-0.17675	0.50804	0.94151	NA
ENMUSG19	14.568	-0.17675	0.50804	0.94151	NA
ENMUSG15	7.812057	-0.9526	0.78126	NA	NA
ENMUSG11	1.19749	0.186959	0.19316	NA	NA
ENMUSG19	36.0334	0.060339	0.85607	0.92044	NA
ENMUSG19	24.2247	-0.0505	0.80567	0.728256	NA
ENMUSG19	49.20569	-0.1862	0.56505	0.937108	NA
ENMUSG15	1531.85	-0.02571	0.82277	0.971918	NA
ENMUSG19	50.0688	-0.29916	0.19111	0.90341	NA
ENMUSG19	14.568	-0.17675	0.50804	0.94151	NA
ENMUSG15	8.988	-0.5871	0.71252	0.868507	NA
ENMUSG19	17.1957	-1.1457	0.10397	NA	NA
ENMUSG13	33.8998	-0.42239	0.30161	0.89538	NA
ENMUSG19	50.0688	-0.29916	0.19111	0.90341	NA
ENMUSG19	23.76254	-0.41494	0.35052	0.88538	NA
ENMUSG18	58.67262	0.27447	0.392716	0.917257	NA
ENMUSG19	60.61189	0.72449	0.45429	0.921734	NA
ENMUSG19	107.061	-0.4822	0.05029	0.708648	NA
ENMUSG19	43.90004	0.33805	0.4971	0.927825	NA
ENMUSG13	63.0346	-0.03152	0.90395	0.909108	NA
ENMUSG19	50.0688	-0.29916	0.19111	0.90341	NA
ENMUSG17	0.25257	0.780115	0.18033	0.8569	NA
ENMUSG19	19.63278	0.311507	0.505457	0.96087	NA
ENMUSG19	24.41769	-0.1444	0.57592	0.929687	NA
ENMUSG19	50.0688	-0.29916	0.19111	0.90341	NA
ENMUSG13	23.1853	0.64373	0.12139	0.91338	NA
ENMUSG18	18.2554	0.19206	0.67474	0.957106	NA
ENMUSG19	30.9224	0.7694	0.06451	0.747935	NA
ENMUSG19	10.6934	-0.00001	0.94588	0.915589	NA
ENMUSG19	24.2247	0.76144	0.05611	0.944775	NA
ENMUSG15	39.0423	0.30003	0.32765	0.906727	NA
ENMUSG15	19.2552	0.23972	0.98806	NA	NA
ENMUSG19	50.0688	-0.29916	0.19111	0.90341	NA
ENMUSG18	10.2648	-0.0407	0.94588	NA	NA
ENMUSG18	16.8842	-0.447	0.37124	0.951491	NA
ENMUSG19	358.079	0.36979	0.82385	0.971918	NA
ENMUSG19	261.1379	0.00212	0.38535	0.942466	NA
ENMUSG19	24.2247	-0.0505	0.80567	0.728256	NA
ENMUSG19	26.00289	0.255787	0.87133	0.953234	NA
ENMUSG15	65.8146	-0.07487	0.78801	0.97681	NA
ENMUSG19	57.52039	0.93938	0.10843	0.804969	NA
ENMUSG19	50.0688	-0.29916	0.19111	0.90341	NA
ENMUSG17	77.6743	0.175687	0.48543	0.92541	NA
ENMUSG13	37.31813	-0.57045	0.088128	0.798438	NA
ENMUSG19	10.22884	0.30096	0.95517	NA	NA
ENMUSG19	50.0688	-0.29916	0.19111	0.90341	NA
ENMUSG17	27.73471	-0.04271	0.91456	0.92407	NA
ENMUSG19	14.08441	-0.47091	0.36332	0.914449	NA
ENMUSG19	9.204935	0.03919	0.881973	NA	NA
ENMUSG19	24.2247	-0.0505	0.80567	0.728256	NA
ENMUSG19	63.4908	0.068463	0.78986	0.97681	NA
ENMUSG14	14.2832	-0.10205	0.80484	0.9826	NA
ENMUSG19	14.66248	0.769877	0.12326	0.864412	NA
ENMUSG19	50.0688	-0.29916	0.19111	0.90341	NA
ENMUSG19	9.09568	0.1685	0.97133	NA	NA
ENMUSG19	8.0183	-0.14348	0.78038	NA	NA
ENMUSG19	21.8094	-0.04479	0.61254		

[illegible]

74.73934	-0.79728	0.16043	0.83724
24.56649	0.080691	0.84965	0.98522
50.14318	-0.75077	0.04021	0.41614
82.04415	-0.18182	0.76364	0.91831
22.89299	-0.75026	0.6831	0.95678
14.25651	-0.44213	0.02444	0.71257
30.84783	-0.7428	0.03400	0.91725
26.60558	-0.11892	0.76364	0.91831
82.04415	-0.18182	0.76364	0.91831
13.27873	-0.09682	0.87064	0.98595
652.5811	0.304977	0.01969	0.80499
16.51529	-0.75026	0.6831	0.95678
9.263491	0.7843	0.25243	0.91831
28.4069	-0.11888	0.74434	0.96951
88.38825	0.381992	0.118995	0.91831
18.7882	-0.47062	0.26265	0.85412
14.54567	0.75026	0.65061	0.95678
8.569284	0.920817	0.475794	0.91831
20.50153	0.01835	0.96703	0.95549
39.39731	0.031865	0.36658	0.914703
18.6885	-0.01950	0.99739	0.91831
24.62916	-0.5572	0.17886	0.80474
22.64807	0.267868	0.52618	0.93282
22.5363	0.34809	0.91927	0.91725
26.51467	0.01835	0.96703	0.95549
83.27863	-0.38889	0.05848	0.91831
16.80657	0.15147	0.30498	0.96248
55.5121	-0.19154	0.07484	0.91241
26.77046	0.01835	0.84663	0.91831
98.9802	0.75026	0.12355	0.914691
65.4878	0.37045	0.0216	0.69784
14.0393	-0.45869	0.3847	0.91725
148.5112	-0.18182	0.76364	0.91831
14.90342	-0.09682	0.87064	0.98595
87.1351	1.37721	0.05408	0.91831
33.98196	-0.0848	0.80898	0.97862
18.6885	-0.01950	0.99739	0.91831
10.47681	-0.49634	0.4632	0.91831
15.26474	0.13400	0.72338	0.97659
33.27255	-0.5034	0.16047	0.83724
59.12986	-0.2786	0.69269	0.91831
73.19673	0.01835	0.96703	0.95549
11.98404	-0.72134	0.2453	0.87704
56.83411	0.531038	0.05848	0.91831
23.0361	-0.2347	0.15885	0.87704
14.22411	-0.09682	0.87064	0.98595
73.59887	0.0639	0.80128	0.91781
14.75129	-0.04235	0.93418	0.93906
36.96402	-0.05528	0.98428	0.99963
35.6995	-0.28182	0.46364	0.91831
36.64717	0.18783	0.50105	0.91477
785.5812	0.45869	0.07484	0.91241
30.12007	-0.03137	0.92699	0.93906
18.6885	-0.01950	0.99739	0.91831
21.25068	0.270662	0.57507	0.94912
176.334	-0.06184	0.76505	0.971384
13.0726	-0.26157	0.06267	0.95479
5.04089	0.11888	0.36658	0.91831
86.42279	0.158572	0.53802	0.93716
33.14904	-0.37341	0.10612	0.80474
33.14962	-0.05957	0.85146	0.98541
31.89383	-0.01950	0.99739	0.91831
15.56762	-0.12188	0.80128	0.977674
42.88158	0.439402	0.15338	0.83724
41.08261	0.081905	0.80898	0.97978
10.48399	-0.09682	0.76364	0.91831
83.13177	-0.18182	0.76364	0.91831
12.6293	-0.14132	0.69376	0.96267
73.51027	0.131029	0.59391	0.94508
26.15952	-0.34447	0.4631	0.93239
80.36014	-0.09682	0.87064	0.98595
99.32515	0.02412	0.90827	0.91958
51.13663	-0.07185	0.94978	0.99188
17.44495	0.76318	0.14966	0.83241
22.22014	-0.09682	0.87064	0.98595
71.98855	-0.18182	0.76364	0.91831
78.05519	-0.08182	0.12222	0.83384
50.14318	0.05218		



ENSMUSGC 35.01655 0.26526 0.348248 0.78132 NA  
ENSMUSGC 194.6721 0.079373 0.679397 0.939883 NA  
ENSMUSGC 9.982853 0.07216 0.757879 NA NA  
ENSMUSGC 10.43138 -0.44244 0.49045 NA NA  
ENSMUSGC 53.34677 0.528036 0.085502 0.540845 NA  
ENSMUSGC 96.89703 -0.21831 0.371955 0.798768 NA  
ENSMUSGC 12.68135 -0.40903 0.93288 NA NA  
ENSMUSGC 65.0416 0.475308 8.10E-05 0.005593 NA  
ENSMUSGC 26.49891 0.129923 0.717978 0.941697 NA  
ENSMUSGC 9.680707 0.966001 0.17878 NA NA  
ENSMUSGC 32.82738 0.147951 0.589326 0.954384 NA  
ENSMUSGC 1151.308 0.791127 0.000858 0.020429 NA  
ENSMUSGC 119.6142 0.16636 0.406097 0.816525 NA  
ENSMUSGC 24.36688 0.429976 0.537781 0.882548 NA  
ENSMUSGC 12.47714 -0.26013 0.8306 NA NA  
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ENSMUSGC 19.45997 -0.09247 0.825755 NA NA  
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ENSMUSGC 10.25014 0.20231 0.834607 NA NA  
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ENSMUSGC 11.86201 0.190489 0.857244 NA NA  
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ENSMUSGC 132.8003 0.159227 0.447885 0.834051 NA  
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ENSMUSGC 21.20829 0.73827 0.948393 0.93188 NA  
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ENSMUSGC 44.96967 0.062755 0.828799 0.960907 NA  
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ENSMUSGC 17.329 0.11294 0.085947 NA NA  
ENSMUSGC 68.5601 0.073033 0.717552 0.954769 NA  
ENSMUSGC 9.813805 -0.06117 0.91612 NA NA  
ENSMUSGC 11.63792 0.044638 0.936361 NA NA  
ENSMUSGC 21.99043 0.04226 0.948393 0.93188 NA  
ENSMUSGC 10.42657 0.050769 0.376562 NA NA  
ENSMUSGC 94.62492 -0.31705 0.141998 0.595166 NA  
ENSMUSGC 31.56246 -0.56459 0.106822 0.549962 NA  
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ENSMUSGC 124.2486 0.033669 0.861549 0.975026 NA  
ENSMUSGC 33.32419 0.062922 0.858276 0.974627 NA  
ENSMUSGC 14.79457 0.368074 0.448748 NA NA  
ENSMUSGC 39.1137 0.04027 0.948393 0.93188 NA  
ENSMUSGC 44.02399 -0.34702 0.238158 0.686299 NA  
ENSMUSGC 21.18483 -0.31412 0.481777 NA NA  
ENSMUSGC 61.15796 -0.01104 0.966803 0.995784 NA  
ENSMUSGC 84.8747 0.04647 0.837991 0.971111 NA  
ENSMUSGC 18.53556 0.04027 0.948393 0.93188 NA  
ENSMUSGC 11.00525 0.705524 0.902779 NA NA  
ENSMUSGC 10.11865 -0.05912 0.918319 NA NA  
ENSMUSGC 12.65334 -0.86165 0.10685 NA NA  
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ENSMUSUG 20.86706 0.66777 0.156754 0.837724 NA  
ENSMUSUG 29.75276 0.021222 0.920883 0.991089 NA  
ENSMUSUG 37.2498 0.13395 0.706984 0.963529 NA  
ENSMUSUG 14.2635 0.138364 0.93062 0.973727 NA  
ENSMUSUG 12.6578 0.15692 0.40272 0.917527 NA  
ENSMUSUG 22.65783 0.03087 0.940625 0.99445 NA  
ENSMUSUG 32.92503 0.04842 0.70823 0.888092 NA  
ENSMUSUG 27.30165 0.04824 0.93734 0.9876 NA NA  
ENSMUSUG 11.5688 -0.70578 0.02818 0.886134 NA  
ENSMUSUG 16.75367 -0.79578 0.18789 0.830678 NA  
ENSMUSUG 14.67502 0.012842 0.981363 0.996756 NA  
ENSMUSUG 11.74582 -0.47258 0.43969 0.91854 NA  
ENSMUSUG 13.73782 0.457776 0.93085 0.971237 NA  
ENSMUSUG 43.242103 -0.15299 0.196188 0.862161 NA  
ENSMUSUG 44.0515 -0.06464 0.669692 0.95676 NA  
ENSMUSUG 16.83111 0.695919 0.163887 0.838291 NA  
ENSMUSUG 43.17953 0.002125 0.94618 0.98881 NA  
ENSMUSUG 34.61798 0.051234 0.956128 0.940524 NA  
ENSMUSUG 369.245 0.277183 0.06802 0.723362 NA  
ENSMUSUG 11.05871 0.20789 0.75874 NA NA  
ENSMUSUG 27.30165 0.04824 0.93734 0.9876 NA NA  
ENSMUSUG 12.83706 -0.17435 0.78389 0.947246 NA  
ENSMUSUG 27.62474 -0.03529 0.932301 0.99306 NA  
ENSMUSUG 18.57391 -0.05197 0.269766 0.887508 NA  
ENSMUSUG 13.55728 -0.16974 0.28368 0.69304 NA  
ENSMUSUG 50.50188 0.010625 0.98676 NA NA  
ENSMUSUG 27.30274 -0.0488 0.89962 0.990558 NA  
ENSMUSUG 40.2 0.0297 0.998826 0.755059 0.971098 NA  
ENSMUSUG 19.584 0.474 0.007423 0.878466 0.99751 NA  
ENSMUSUG 83.2444 0.04083 0.93064 0.97862 NA  
ENSMUSUG 16.4555 -0.8753 0.05059 0.779799 NA  
ENSMUSUG 11.95289 -0.36209 0.952301 0.934795 NA  
ENSMUSUG 14.8067 0.03657 0.729631 0.966887 NA  
ENSMUSUG 29.49897 0.338702 0.938702 0.938702 NA  
ENSMUSUG 19.95201 -0.2383 0.669143 NA NA  
ENSMUSUG 132.1701 -0.2349 0.25882 0.883082 NA  
ENSMUSUG 21.5321 0.397386 0.108233 0.904969 NA  
ENSMUSUG 88.5994 0.036372 0.88738 0.990558 NA  
ENSMUSUG 41.28256 0.188726 0.95894 0.93204 NA  
ENSMUSUG 106.749 0.006602 0.891967 0.99676 NA  
ENSMUSUG 24.87412 0.136091 0.753699 0.971141 NA  
ENSMUSUG 38.2938 0.19503 0.516718 0.93956 NA  
ENSMUSUG 22.94525 0.34855 0.93085 0.971237 NA  
ENSMUSUG 10.52877 -0.44166 0.79675 NA NA  
ENSMUSUG 54.67084 -0.21609 0.456247 0.923239 NA  
ENSMUSUG 12.65514 0.420948 0.654812 0.931274 NA  
ENSMUSUG 10.7688 0.69137 0.277688 NA NA  
ENSMUSUG 16.58187 -0.34709 0.484845 0.92499 NA  
ENSMUSUG 22.8189 0.176046 0.930781 0.962481 NA  
ENSMUSUG 15.9761 0.24306 0.615318 0.951177 NA  
ENSMUSUG 25.53692 -0.83813 0.055006 0.991933 NA  
ENSMUSUG 38.84409 0.01422 0.914228 NA NA  
ENSMUSUG 50.90176 -0.18376 0.54623 0.938063 NA  
ENSMUSUG 6.36237 -0.38168 0.554149 NA NA  
ENSMUSUG 9.2508 0.539239 0.647614 NA NA  
ENSMUSUG 17.26143 0.540281 0.23587 0.88613 NA  
ENSMUSUG 12.61167 -0.57307 0.18201 0.88134 NA  
ENSMUSUG 123.161 -0.45397 0.051929 0.923329 NA  
ENSMUSUG 16.71 0.01459 0.93298 0.99306 NA  
ENSMUSUG 13.93205 -0.27153 0.645808 0.933903 NA  
ENSMUSUG 15.06837 0.858505 0.246088 0.877904 NA  
ENSMUSUG 20.06155 -0.12527 0.796135 0.97681 NA  
ENSMUSUG 30.21401 -0.53223 0.610474 0.877724 NA  
ENSMUSUG 37.371493 0.133531 0.435321 0.930622 NA  
ENSMUSUG 34.1162 -0.00321 0.984336 0.999661 NA  
ENSMUSUG 20.09976 -0.13005 0.769341 0.947246 NA  
ENSMUSUG 8.90886 0.132042 0.88381 NA NA  
ENSMUSUG 11.91829 -0.65111 0.26401 0.888134 NA  
ENSMUSUG 26.0029 0.276048 0.94743 0.932329 NA  
ENSMUSUG 9.324175 -0.56652 0.371203 NA NA  
ENSMUSUG 19.10943 0.281841 0.93169 0.972126 NA  
ENSMUSUG 18.73743 0.382028 0.474314 0.917527 NA  
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ENSMUSUG 24.85635 -0.03628 0.930497 0.99306 NA  
ENSMUSUG 10.31813 -0.06605 0.915331 NA NA  
ENSMUSUG 11.8034 -0.38146 0.97818 0.97825 NA NA  
ENSMUSUG 25.4658 0.725042 0.93085 0.97825 NA NA  
ENSMUSUG 18.1834 0.30691 0.162908 0.804969 NA  
ENSMUSUG 33.8118 0.104358 0.564847 0.941206 NA  
ENSMUSUG 21.09034 0.04847 0.30873 0.898538 NA  
ENSMUSUG 11.55398 -0.47799 0.093579 0.8811 NA  
ENSMUSUG 14.80704 0.79177 0.917527 NA NA  
ENSMUSUG 21.1334 -0.01097 0.853725 0.98563 NA  
ENSMUSUG 39.5123 -0.14547 0.660181 0.996205 NA  
ENSMUSUG 15.79253 0.047172 0.976681 0.996416 NA  
ENSMUSUG 25.1879 0.06116 0.93085 0.971237 NA  
ENSMUSUG 10.57145 0.39614 0.457135 0.923329 NA  
ENSMUSUG 95.1504 -0.19316 0.764135 NA NA  
ENSMUSUG 20.3173 -0.34487 0.425317 0.917527 NA  
ENSMUSUG 15.90686 -0.455169 0.081 0.912263 NA  
ENSMUSUG 16.68377 0.596795 0.107107 0.978582 NA  
ENSMUSUG 24.7133 0.161373 0.691206 0.960071 NA  
ENSMUSUG 12.4195 -0.42872 0.051342 0.711116 NA  
ENSMUSUG 23.86867 -0.00797 0.608216 0.990113 NA  
ENSMUSUG 77.86955 0.132709 0.97431 0.95423 NA  
ENSMUSUG 400.40758 -0.2431 0.095373 0.96313 NA  
ENSMUSUG 35.82879 0.023709 0.94981 0.94798 NA NA  
ENSMUSUG 18.0961 0.1523



ENSMUSG	10.51119	-0.33589	0.573005	NA	ENSMUSG	18.1851	-0.10308	0.845706	0.984269	NA	ENSMUSG	Ndn	3138.617	0.175276	0.055364	0.361966	ENSMUSG	Ndn	2757.425	-0.071335	0.594782	0.945444	
ENSMUSG	70.21228	0.071534	0.77238	0.955069	NA	ENSMUSG	17.34952	-0.56478	0.246689	0.877904	NA	ENSMUSG	NdnH	471.2843	-0.32482	0.055512	0.36248	ENSMUSG	NdnH	594.624	0.582716	0.002419	0.152605
ENSMUSG	12.184	-0.23267	0.67384	0.94363	NA	ENSMUSG	25.01776	-0.13925	0.70275	0.949632	NA	ENSMUSG	NdnH	590.4582	0.035462	0.81192	0.96418	ENSMUSG	NdnH	719.8676	-0.04055	0.870782	0.978622
ENSMUSG	61.686	-0.23927	0.34054	0.779153	NA	ENSMUSG	20.55114	-0.27736	0.551545	0.937797	NA	ENSMUSG	Ndp	667.144	0.027573	0.813289	0.954734	ENSMUSG	Ndp	607.9638	0.020705	0.80004	0.985538
ENSMUSG	9.402414	-0.01124	0.986231	NA	NA	ENSMUSG	17.71594	0.79344	0.108875	0.904699	NA	ENSMUSG	Ndp1	3332.791	-0.0492	0.574934	0.954572	ENSMUSG	Ndp1	3040.651	-0.04332	0.927409	0.966887
ENSMUSG	102.2354	-0.14561	0.505325	0.866883	NA	ENSMUSG	24.00474	0.43144	0.30769	0.898534	NA	ENSMUSG	Ndp2	125067.1	0.207084	0.068379	0.405144	ENSMUSG	Ndp2	98271.41	-0.23235	0.108749	0.804969
ENSMUSG	20.84002	-0.218586	0.548695	NA	NA	ENSMUSG	21.85896	0.377171	0.020976	0.573377	NA	ENSMUSG	Ndp3	1351.12	0.009259	0.795119	0.79513	ENSMUSG	Ndp3	1310.82	-0.1546	0.20252	0.864412
ENSMUSG	35.56092	0.466557	0.178602	0.616298	NA	ENSMUSG	45.12593	-0.03143	0.965872	0.959433	NA	ENSMUSG	Ndp4	31993.87	-0.01962	0.875456	0.979057	ENSMUSG	Ndp4	2807.12	-0.13271	0.330288	0.907251
ENSMUSG	80.632	-0.11875	0.584443	0.898802	NA	ENSMUSG	38.75156	-0.20685	0.580353	0.939565	NA	ENSMUSG	Nds1	6197.817	0.014352	0.890387	0.983687	ENSMUSG	Nds1	5905.05	-0.14261	0.282886	0.892412
ENSMUSG	23.49454	0.118171	0.773697	0.95556	NA	ENSMUSG	67.6784	-0.09151	0.721513	0.966887	NA	ENSMUSG	Nds2	484.3612	-0.11578	0.453378	0.836798	ENSMUSG	Nds2	518.0206	0.33999	0.078736	0.77321
ENSMUSG	56.56064	-0.00562	0.753936	0.955222	NA	ENSMUSG	75.75936	-0.00062	0.753936	0.955222	NA	ENSMUSG	Nds3	654.3215	-0.080817	0.51779	0.955222	ENSMUSG	Nds3	719.8676	-0.04055	0.870782	0.978622
ENSMUSG	50.5895	0.0073	0.845233	0.997913	NA	ENSMUSG	32.7654	-0.37856	0.340003	0.809772	NA	ENSMUSG	Nds4	172.3822	-0.05949	0.14062	0.954634	ENSMUSG	Nds4	719.8676	-0.04055	0.870782	0.978622
ENSMUSG	3787.095	-0.00126	0.991033	0.999322	NA	ENSMUSG	15.26375	-0.17621	0.72336	0.966887	NA	ENSMUSG	Nds1a	2324.439	-0.0214	0.90301	0.986055	ENSMUSG	Nds1a	2024.119	-0.15129	0.251289	0.879902
ENSMUSG	31.72141	-0.04592	0.900568	0.985633	NA	ENSMUSG	401936.9	-0.00991	0.0461	0.947749	NA	ENSMUSG	Nds1a10	4597.218	0.001667	0.98193	0.998326	ENSMUSG	Nds1a10	3841.265	-0.0212	0.03199	0.63188
ENSMUSG	17.1271	0.024757	0.931463	0.988483	NA	ENSMUSG	540462.2	-0.0074	0.073156	0.996416	NA	ENSMUSG	Nds1a11	1913.384	-0.071764	0.487732	0.861898	ENSMUSG	Nds1a11	1536.252	-0.27744	0.08484	0.787956
ENSMUSG	12.67688	-0.08879	0.59092	NA	NA	ENSMUSG	70.21228	0.11919	0.59943	0.947071	NA	ENSMUSG	Nds1a12	2835.46	0.010323	0.975952	0.981436	ENSMUSG	Nds1a12	2772.22	-0.00676	0.02149	0.451781
ENSMUSG	38.83768	-0.01862	0.950692	0.993821	NA	ENSMUSG	256.5014	0.525109	0.52371	0.932848	NA	ENSMUSG	Nds1a13	5958.606	-0.04239	0.986152	0.897709	ENSMUSG	Nds1a13	5106.516	-0.22794	0.08471	0.70542
ENSMUSG	42.89025	0.102636	0.732749	0.944596	NA	ENSMUSG	108.7975	-0.01629	0.587076	0.955545	NA	ENSMUSG	Nds1a13	288.414	0.062395	0.524538	0.875849	ENSMUSG	Nds1a13	2373.967	-0.2004	0.067057	0.75212
ENSMUSG	12.37604	-0.17103	0.746311	NA	NA	ENSMUSG	1269.447	-0.09177	0.900979	0.995554	NA	ENSMUSG	Nds1a13	3781.229	-0.03993	0.611727	0.905856	ENSMUSG	Nds1a13	3102.71	-0.36632	0.001518	0.147666
ENSMUSG	10.19112	0.116814	0.202922	NA	NA	ENSMUSG	827.1415	-0.09446	0.881314	0.986044	NA	ENSMUSG	Nds1a13	7086.729	-0.07006	0.320478	0.765921	ENSMUSG	Nds1a13	6114.304	-0.14659	0.0325	0.636943
ENSMUSG	16.28439	-0.26901	0.570786	NA	NA	ENSMUSG	26.80678	0.027236	0.900008	0.947948	NA	ENSMUSG	Nds1a12	92.47794	0.24243	0.169108	0.603241	ENSMUSG	Nds1a12	105.4871	-0.27168	0.474177	0.932329
ENSMUSG	27.46044	0.064424	0.860884	0.975025	NA	ENSMUSG	44.57035	-0.488545	0.162532	0.837724	NA	ENSMUSG	Nds1a13	2287.417	0.039525	0.685455	0.933041	ENSMUSG	Nds1a13	1898.458	-0.23766	0.07177	0.578714
ENSMUSG	38.56483	-0.12729	0.693945	0.934202	NA	ENSMUSG	175.1686	-0.77598	0.216394	0.886157	NA	ENSMUSG	Nds1a13	2312.043	-0.0451	0.615128	0.914073	ENSMUSG	Nds1a13	2021.664	-0.17049	0.148804	0.836241
ENSMUSG	83.47862	-0.05297	0.072549	0.2548	NA	ENSMUSG	38.01725	-0.00244	0.987442	0.99751	NA	ENSMUSG	Nds1a13	2888.892	-0.01947	0.814808	0.964574	ENSMUSG	Nds1a13	2384.455	-0.32665	0.00026	0.320634
ENSMUSG	26.4154	0.174547	0.259113	0.708914	NA	ENSMUSG	116.3019	-0.04739	0.842009	0.883044	NA	ENSMUSG	Nds1a13	3952.654	0.024125	0.771248	0.954726	ENSMUSG	Nds1a13	3238.745	-0.30008	0.00617	0.406458
ENSMUSG	15.76482	-0.12423	0.786078	NA	NA	ENSMUSG	162.301	0.023777	0.929615	0.99306	NA	ENSMUSG	Nds1a13	3258.348	0.046473	0.634581	0.914073	ENSMUSG	Nds1a13	2747.639	-0.18687	0.124071	0.814691
ENSMUSG	37.57224	0.086035	0.790382	0.959461	NA	ENSMUSG	690.672	-0.563905	0.012676	0.512179	NA	ENSMUSG	Nds1a13	1794.876	0.006196	0.949789	0.993821	ENSMUSG	Nds1a13	1554.395	-0.14542	0.21145	0.866104
ENSMUSG	178.1833	-0.76285	0.009289	0.032953	NA	ENSMUSG	727.7601	-0.016665	0.904796	0.919598	NA	ENSMUSG	Nds1a13	498.5051	-0.01399	0.914408	0.988483	ENSMUSG	Nds1a13	738.5086	-0.1881	0.189997	0.875755
ENSMUSG	10.70311	-0.036624	0.930684	NA	NA	ENSMUSG	138.1922	-0.12996	0.423572	0.917527	Na10	ENSMUSG	Nds1a13	323.621	-0.01378	0.794322	0.959799	ENSMUSG	Nds1a13	194.72	-0.0096	0.696972	0.734842
ENSMUSG	21.91241	-0.31926	0.442532	0.93278	NA	ENSMUSG	1237.926	0.079422	0.365699	0.917708	Na15	ENSMUSG	Nds1a13	898.701	-0.08323	0.421405	0.824898	ENSMUSG	Nds1a13	817.5995	-0.0908	0.14871	0.927578
ENSMUSG	16.30491	-0.81551	0.110744	NA	NA	ENSMUSG	195.4507	-0.36601	0.738881	0.916776	Na16	ENSMUSG	Nds1a13	605.595	0.016447	0.981565	0.981565	ENSMUSG	Nds1a13	591.7593	-0.203998	0.006978	0.851126
ENSMUSG	15.69389	-0.24522	0.609001	NA	NA	ENSMUSG	650.6174	-0.04283	0.819288	0.976106	Na20	ENSMUSG	Nds1a13	552.564	0.085048	0.49012	0.893919	ENSMUSG	Nds1a13	479.1184	-0.06178	0.728939	0.967228
ENSMUSG	18.1745	-0.02792	0.548959	NA	NA	ENSMUSG	1066.228	-0.112462	0.869671	0.971757	Na23	ENSMUSG	Nds1a13	147.49	-0.13149	0.989579	0.989619	ENSMUSG	Nds1a13	12007.28	-0.14659	0.0325	0.636943
ENSMUSG	8.806321	1.352293	0.056119	NA	NA	ENSMUSG	734.72	-0.125032	0.848857	0.92554	Na26	ENSMUSG	Nds1a13	996.037	0.090282	0.343391	0.797913	ENSMUSG	Nds1a13	865.8238	-0.04536	0.161514	0.965773
ENSMUSG	29.59097	-0.07995	0.819962	0.965888	NA	ENSMUSG	1145.683	-0.00378	0.792702	0.97681	Na35	ENSMUSG	Nds1a13	554.9828	-0.03076	0.77311	0.955272	ENSMUSG	Nds1a13	444.4028	-0.4607	0.002938	0.217424
ENSMUSG	44.96202	-0.0025	0.994349	0.993939	NA	ENSMUSG	926.7072	-0.21118	0.112321	0.890028	Na38	ENSMUSG	Nds1a13	1696.227	-0.015216	0.891566	0.983955	ENSMUSG	Nds1a13	1346.588	-0.2079	0.119423	0.830678
ENSMUSG	13.02944	-0.0029	0.700292	0.93094	NA	ENSMUSG	1027.74	-0.15046	0.95811	0.94798	Na41	ENSMUSG	Nds1a13	325.922	-0.00584	0.95811	0.94798	ENSMUSG	Nds1a13	2814.304	-0.14659	0.0325	0.636943
ENSMUSG	14.65697	-0.06309	0.896194	NA	NA	ENSMUSG	186.917	-0.01655	0.952329	0.89306	Na42	ENSMUSG	Nds1a13	4205.914	-0.02379	0.792463	0.959461	ENSMUSG	Nds1a13	3669.66	-0.15504	-0.18248	0.850579
ENSMUSG	29.60975	-0.06155	0.861535	0.975026	NA	ENSMUSG	3179.223	-0.08116	0.704738	0.962677	Na60	ENSMUSG	Nds1a13	927.9536	0.015696	0.880086	0.981565	ENSMUSG	Nds1a13	776.3207	-0.24641	0.078061	0.77321
ENSMUSG	511.7322	-0.406	0.014048	0.173278	NA	ENSMUSG	382.2889	-0.015224	0.911419	0.992196	Na80	ENSMUSG	Nds1a13	1690.035	-0.0269	0.429876	0.826266	ENSMUSG	Nds1a13	1453.449	-0.24653	0.045213	0.693959
ENSMUSG	62.99593	0.101006	0.691127	0.933881	NA	ENSMUSG	2918.273	-0.1532	0.77951	0.981468	Na84	ENSMUSG	Nds1a13	897.3947	-0.11426	0.91179	0.793901	ENSMUSG	Nds1a13	787.2094	-0.2354	0.07148	0.767423
ENSMUSG	20.27636	-0.0223	0.969623	NA	NA	ENSMUSG	62.61447	-0.498024	0.918679	0.986979	Na82	ENSMUSG	Nds1a13	23.7981	-0.00267	0.981764	0.98748	ENSMUSG	Nds1a13	147.0623	-0.17249	0.02174	0.578714
ENSMUSG	10.66514	0.222488	0.469092	NA	NA	ENSMUSG	52.2284	-0.00415	0.988479	0.947798	Na82	ENSMUSG	Nds1a13	372.627	-0.06422	0.458777	0.897499	ENSMUSG	Nds1a13	3064.008	-0.2095	0.068442	0.725603
ENSMUSG	17.4061	0.128763	0.295023	NA	NA	ENSMUSG	1613.681	-0.05731	0.698541	0.96908	Na1	ENSMUSG	Nds1a13	1438.851	-0.0166	0.950204	0.90113	ENSMUSG	Nds1a13	1245.327	-0.21276	0.16185	0.853505
ENSMUSG	27.63074	-0.3754	0.382662	0.803227	NA	ENSMUSG	79.7358	-0.3531	0.063583	0.736482	Na1	ENSMUSG	Nds1a13	2291.033	0.021326	0.802629	0.969692	ENSMUSG	Nds1a13	1934.434	-0.07297	0.105515	0.804969
ENSMUSG	24.74657	-0.02167	0.789554	NA	NA	ENSMUSG	17.64808	-0.121758	0.981777	0.99048	Na1	ENSMUSG	Nds1a13	617.591	-0.0197	0.9197	0.981777						



ENSMUSG 48.79978 -0.31798 0.268511 0.178807 NA  
ENSMUSG 22.9117 -0.80378 0.986845 0.473775 NA  
ENSMUSG 42.80247 -0.13992 0.64688 0.93453 NA0  
ENSMUSG 365.2639 -0.12556 0.33232 0.77560 NAx10  
ENSMUSG 1359.873 0.085106 0.356774 0.788403 NAx16  
ENSMUSG 198.6441 0.15641 0.313201 0.7759 NAx16  
ENSMUSG 606.9932 0.13532 0.645451 0.7759 NAx20  
ENSMUSG 1106.078 -0.05234 0.631368 0.914073 NAx25  
ENSMUSG 772.0669 0.090858 0.940185 0.993415 NAx30  
ENSMUSG 1327.942 0.122586 0.919552 0.630601 NAx35  
ENSMUSG 1800.16 0.24008 0.41098 0.646403 NAx38  
ENSMUSG 1064.322 -0.00708 0.484068 0.993821 NAx40  
ENSMUSG 200.121 -0.00302 0.980805 0.997512 NAx50  
ENSMUSG 3491.668 0.098976 0.621615 0.911432 NAx60  
ENSMUSG 406.8976 -0.07663 0.516273 0.872701 NAx80  
ENSMUSG 3029.758 -0.00054 0.95698 0.95943 NAx90  
ENSMUSG 49.93075 -0.51429 0.090315 0.989469 NAx90e2  
ENSMUSG 44.21782 -0.96113 0.002864 0.665614 NAx90e2  
ENSMUSG 1810.767 0.009532 0.525886 0.912929 NAx91  
ENSMUSG 866.7868 -0.26175 0.944098 NAx2  
ENSMUSG 175.4203 -0.09312 0.659685 0.924524 NAx91  
ENSMUSG 245.28 -0.03729 0.682643 0.93198 NAx91  
ENSMUSG 4562.253 0.096161 0.254708 0.700911 NAx4  
ENSMUSG 1150.969 -0.15694 0.132934 0.525458 NAx92  
ENSMUSG 631.2256 0.134244 0.119191 0.50438 NAx1  
ENSMUSG 16314.42 0.407059 0.682252 0.931962 NAx2  
ENSMUSG 4005.895 0.146665 0.128994 0.537025 NAx2  
ENSMUSG 3994.999 0.108356 0.477125 0.82532 NAx2  
ENSMUSG 175.366 0.03579 0.741896 0.944678 NAx91  
ENSMUSG 855.9598 -0.0304 0.767928 0.94642 NAx1  
ENSMUSG 528.1917 0.008016 0.954087 0.993874 NAx1  
ENSMUSG 948.8724 -0.33995 0.099196 0.135112 NAx9  
ENSMUSG 1162.654 0.099377 0.64592 0.839912 NAx9  
ENSMUSG 409.6716 -0.42976 0.026683 0.062344 NAx9  
ENSMUSG 346.5948 -0.12357 0.396819 0.811742 NAx9  
ENSMUSG 143.61 -0.19015 0.255702 0.760195 NAx1  
ENSMUSG 12.6572 0.133869 0.944098 NAx2  
ENSMUSG 55.67633 -0.15751 0.613738 0.908201 NAx92  
ENSMUSG 80.81009 -0.49157 0.048973 0.337919 NAx9  
ENSMUSG 47.49215 -0.4272 0.152016 0.577721 NAx9  
ENSMUSG 173.779 0.484 0.034008 0.705083 NAx9  
ENSMUSG 2643.177 -0.18911 0.04215 0.917931 NAx9  
ENSMUSG 970.3349 0.39572 0.012297 0.145618 NAx2  
ENSMUSG 1166.309 -0.05936 0.540786 0.88315 NAx9  
ENSMUSG 1084.202 0.00818 0.934855 0.993231 NAx9  
ENSMUSG 40.06825 -0.2352 0.746234 0.820903 NAx9  
ENSMUSG 55.67633 -0.15751 0.613738 0.908201 NAx92  
ENSMUSG 22.05071 -0.03939 0.924414 0.9914 NAx9  
ENSMUSG 372.8805 0.092325 0.768225 0.954641 NAx5  
ENSMUSG 5082.426 0.04866 0.635559 0.914545 NAx91  
ENSMUSG 793.5891 -0.25574 0.099377 0.64592 NAx9  
ENSMUSG 479.2366 -0.02842 0.863274 0.97005 NAx13  
ENSMUSG 3810.561 0.163357 0.03062 0.684818 NAx14  
ENSMUSG 419.9872 0.047165 0.729696 0.948413 NAx15  
ENSMUSG 5232.399 -0.00885 0.8246 0.965632 NAx9  
ENSMUSG 781.572 0.07917 0.746234 0.820903 NAx9  
ENSMUSG 291.0775 0.266233 0.116659 0.51052 NAx9  
ENSMUSG 2685.351 0.01502 0.874921 0.979746 NAx9  
ENSMUSG 367.8991 -0.00215 0.988256 0.999109 NAx9  
ENSMUSG 26.01754 -0.12066 0.0448 0.179729 NAx9  
ENSMUSG 1425.817 0.145534 0.132338 0.544521 NAx9  
ENSMUSG 3921.562 0.088454 0.344709 0.779153 NAx1  
ENSMUSG 328.754 -0.09086 0.46158 0.8415 NAx2  
ENSMUSG 603.6874 -0.25408 0.099377 0.64592 NAx9  
ENSMUSG 90.61949 0.1417 0.548777 0.875685 NAx1  
ENSMUSG 909.5075 0.158788 0.157473 0.589551 NAx9  
ENSMUSG 304.825 -0.20343 0.080804 0.438597 NAx14  
ENSMUSG 36.75329 0.180962 0.611056 0.9456 NAx9  
ENSMUSG 99.91793 0.13113 0.78951 0.947708 NAx9  
ENSMUSG 633.1842 0.049616 0.713956 0.949093 NAx81  
ENSMUSG 21.47079 0.29809 0.40293 0.815716 NAx82  
ENSMUSG 154.8668 0.007105 0.502702 0.990274 NAx85  
ENSMUSG 102.9 0.05625 0.760195 0.924524 NAx85  
ENSMUSG 95.77454 0.134518 0.603797 0.950503 NAx85  
ENSMUSG 25.04484 0.488424 0.203144 0.646363 NAx86  
ENSMUSG 11.99024 -0.24033 0.660314 NAx87  
ENSMUSG 13458.89 0.188718 0.045212 0.845212 NAx87  
ENSMUSG 321.2198 0.086189 0.511738 0.871106 NAx9  
ENSMUSG 663.0213 0.174121 0.106494 0.494714 NAx9  
ENSMUSG 4182.74 -0.18527 0.028206 0.256543 NAx1  
ENSMUSG 2835.328 0.44054 0.24404 0.646403 NAx1  
ENSMUSG 517.665 0.101038 0.225248 0.672004 NAx3  
ENSMUSG 1704.974 -0.01261 0.883265 0.984242 NAx3  
ENSMUSG 1650.221 -0.1252 0.157135 0.58551 NAx9  
ENSMUSG 1086.883 -0.21152 0.122793 0.58551 NAx5  
ENSMUSG 567.1132 0.045624 0.929093 NAx9  
ENSMUSG 421.01 0.052869 0.958542 0.930181 NAx9  
ENSMUSG 654.3249 -0.09138 0.558484 0.888521 NAx9  
ENSMUSG 475.6765 0.120996 0.31163 0.792998 NAx9  
ENSMUSG 321.244 -0.05408 0.929093 NAx9  
ENSMUSG 439.5983 0.24112 0.046439 0.526186 NAx9  
ENSMUSG 6141.722 -0.02961 0.766119 0.954713 NAx1  
ENSMUSG 13831.09 0.065252 0.432929 0.828185 NAx1  
ENSMUSG 9986.927 0.13082 0.046439 0.526186 NAx9  
ENSMUSG 1137.295 -0.43606 0.014697 0.178407 NAx2  
ENSMUSG 25322.95 -0.19682 0.102053 0.486742 NAx9  
ENSMUSG 788.3054 0.014446 0.897785 0.985613 NAx92  
ENSMUSG 628.6196 0.030295 0.961474 0.994205 NAx93  
ENSMUSG 20.39485 -0.05574 0.09579 NAx9  
ENSMUSG 194.7071 -0.00707 0.969182 0.996369 NAx92  
ENSMUSG 80.20079 0.16186 0.48979 0.913933 NAx9  
ENSMUSG 4042.45 0.007719 0.76127 0.6423 NAx92  
ENSMUSG 1540.589 0.09012 0.6423 NAx92  
ENSMUSG 1332.15 0.050808 0.613902 0.929093 NAx9  
ENSMUSG 1409.012 0.062542 0.798693 0.960896 NAx92  
ENSMUSG 590.1284 0.103313 0.353224 0.785373 NAx93  
ENSMUSG 18.88366 0.062316 NAx94  
ENSMUSG 3340.41 0.06236 0.519623 0.847979 NAx9  
ENSMUSG 3685.805 -0.44877 0.00163 0.047148 NAx9  
ENSMUSG 435.3406 0.033439 0.789824 0.959461 NAx1  
ENSMUSG 241.0065 0.10078 0.957689 0.959874 NAx2  
ENSMUSG 49.87119 0.047148 0.959874 NAx2  
ENSMUSG 336.5827 0.13777 0.297149 0.745805 NAx2  
ENSMUSG 742.1888 0.050123 0.687635 0.9324 NAx2  
ENSMUSG 14621.88 0.099012 0.228404 0.679948 NAx91  
ENSMUSG 876.404 0.18412 0.012094 0.646403 NAx90  
ENSMUSG 339.2962 -0.06065 0.958295 0.958295 NAx95  
ENSMUSG 884.6343 0.035789 0.72797 0.944355 NAx95  
ENSMUSG 175.744 0.180516 0.675336 0.45663 NAx95  
ENSMUSG 7729.208 0.0009 0.929093 NAx95  
ENSMUSG 2188.879 -0.17674 0.224768 0.671058 NAx9  
ENSMUSG 24.38786 0.736307 0.364621 0.793796 NAx9  
ENSMUSG 4045.52 0.157538 0.347089 0.332754 NAx91  
ENSMUSG 2150.781 0.103095 0.071699 0.720802 NAx92  
ENSMUSG 1444.696 -0.01747 0.190175 0.629268 NAx93  
ENSMUSG 1056.468 0.003105 0.974451 0.997072 NAx94  
ENSMUSG 1324.78 0.167359 0.083841 0.446475 NAx95  
ENSMUSG 2070.292 0.028845 0.762173 0.954549 NAx96  
ENSMUSG 927.8252 0.0567 0.84774 0.929093 NAx97  
ENSMUSG 7721.544 0.20463 0.188609 0.627639 NAx98  
ENSMUSG 6519.236 0.03181 0.751715 0.950337 NAx92  
ENSMUSG 18975.74 0.190733 0.002314 0.214568 NAx1  
ENSMUSG 2737.881 0.03181 0.751715 0.950337 NAx92  
ENSMUSG 68432.75 -0.06433 0.90754 NAx1  
ENSMUSG 407091.2 -0.09528 0.5595 0.888669 ND1  
ENSMUSG 835.36 -0.22345 0.31332 0.76033 ND1  
ENSMUSG 4759.67 -0.25001 0.958295 0.958295 ND1  
ENSMUSG 248.075 -0.08909 0.709097 0.93669 ND4  
ENSMUSG 5109.837 -0.05522 0.66983 0.928209 ND5  
ENSMUSG 4694.734 -0.26279 0.138224 0.53617 ND6  
ENSMUSG 867.0912 -0.11815 0.359429 0.917031 NAx1  
ENSMUSG 15.20264 0.08829 0.91369 0.91369 ND40  
ENSMUSG 2176.859 0.883984 0.0145 0.16041 NAx1  
ENSMUSG 200.23 0.14031 0.215881 0.924259 ND1  
ENSMUSG 11850.63 -0.54522 0.00016 0.007099 ND1  
ENSMUSG 2891.595 0.52091 7.18545 0.91369 ND1  
ENSMUSG 3138.617 0.175276 0.055364 0.36196 ND1  
ENSMUSG 471.2843 -0.32492 0.055512 0.36248 ND1  
ENSMUSG 350.4582 0.035462 0.811929 0.964318 ND91  
ENSMUSG 687.1414 0.07573 0.811929 0.964574 ND91  
ENSMUSG 1332.791 -0.04892 0.57483 0.964574 ND91  
ENSMUSG 125067.3 0.207084 0.068379 0.405144 ND92  
ENSMUSG 13511.29 0.093057 0.345619 0.779153 ND92  
ENSMUSG 31993.87 -0.01962 0.873546 0.879078 ND92  
ENSMUSG 6197.817 0.0152 0.873546 0.879078 ND92  
ENSMUSG 484.3612 -0.11578 0.437339 0.97968 ND42  
ENSMUSG 654.3215 -0.08601 0.517399 0.873295 ND44  
ENSMUSG 172.2822 -0.05949 1.40E-05 0.00146 ND44  
ENSMUSG 2324.439 -0.01294 0.903951 0.986955 ND41  
ENSMUSG 812.3942 -0.03646 0.948278 0.994798 ND3  
ENSMUSG 4045.638 -0.11932 0.442257 0.921554 ND4  
ENSMUSG 127.9415 -0.07147 0.88073 0.98964 NAx2  
ENSMUSG 4657.7679 -0.05593 0.975768 0.971858 ND5  
ENSMUSG 4786.296 -0.06966 0.67136 0.97566 ND6  
ENSMUSG 873.0004 0.169383 0.255313 0.882761 NAx1  
ENSMUSG 15.12097 0.109094 0.35344 0.901237 NAx9  
ENSMUSG 1755.656 -0.05628 0.65287 0.954897 NAx1  
ENSMUSG 1704.338 -0.05147 0.682643 0.953903 NAx1  
ENSMUSG 13577.71 0.163337 0.324633 0.905257 NAx91  
ENSMUSG 104.773 0.07147 0.72081 0.92155 NAx9  
ENSMUSG 2757.435 0.07335 0.594782 NAx9  
ENSMUSG 594.6424 0.587716 0.002419 0.192605 NAx9  
ENSMUSG 309.9123 -0.04055 0.807822 0.978622 ND91  
ENSMUSG 607.5087 0.028075 0.805004 0.98536 NAx9  
ENSMUSG 3040.651 -0.04352 0.127409 0.966887 NAx9  
ENSMUSG 9827.141 -0.22325 0.108749 0.940698 NAx92  
ENSMUSG 1310.82 -0.15449 0.202252 0.864412 NAx9  
ENSMUSG 2807.12 -0.13571 0.033808 0.97521 NAx9  
ENSMUSG 5905.05 0.14051 0.32891 0.97521 NAx9  
ENSMUSG 518.0206 0.33999 0.07876 0.7732 NAx2  
ENSMUSG 175.8676 0.43101 0.009974 0.093388 NAx2  
ENSMUSG 215.642 0.039357 0.853431 0.985958 NAx4  
ENSMUSG 2024.119 -0.15129 0.252189 0.879992 NAx4  
ENSMUSG 3841.265 -0.26212 0.09319 0.631388 NAx9  
ENSMUSG 1636.252 -0.27744 0.088438 0.786756 NAx91  
ENSMUSG 2307.15 -0.33623 0.04019 0.451781 NAx92  
ENSMUSG 5106.516 -0.22974 0.07017 0.706142 NAx93  
ENSMUSG 273.967 -0.25024 0.267057 0.7512 NAx94  
ENSMUSG 310.721 -0.36632 0.005118 0.147636 NAx93  
ENSMUSG 6114.304 -0.24659 0.03258 0.636943 NAx94  
ENSMUSG 171.048 0.271148 0.07177 0.93239 NAx94  
ENSMUSG 1898.458 -0.24176 0.03912 0.95912 NAx94  
ENSMUSG 2021.664 -0.17148 0.148804 0.832641 NAx96  
ENSMUSG 2384.455 -0.32665 0.006026 0.23063 NAx96  
ENSMUSG 1328.745 -0.30009 0.099127 0.40656 NAx96  
ENSMUSG 13.18887 0.18887 0.01 0.95912 NAx96  
ENSMUSG 1554.935 -0.14542 0.22343 0.646403 NAx91  
ENSMUSG 378.5086 -0.1881 0.89997 0.857355 NAx91  
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ENSMUSG 817.595 -0.9008 0.481778 0.95478 NAx91  
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ENSMUSG 479.184 -0.06178 0.726898 0.9728 NAx95  
ENSMUSG 1340.164 -0.12976 0.524648 0.934374 NAx96  
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ENSMUSG 444.028 -0.44607 0.186158 0.85305 NAx96  
ENSMUSG 1436.58 -0.20729 0.139423 0.830676 NAx96  
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ENSMUSG 2209.199 -0.28971 0.01213 0.947708 NAx97  
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ENSMUSG 2803.159 -0.20482 0.117289 0.83138 NAx97  
ENSMUSG 1917.188 -0.27356 0.06483 0.78111 NAx98  
ENSMUSG 1204.381 -0.21774 0.18774 NAx98  
ENSMUSG 624.989 0.591971 0.031626 0.631152 NAx9  
ENSMUSG 300.782 -0.04483 0.175186 0.975717 NAx9  
ENSMUSG 1215.962 0.020194 0.891218 0.959595 NAx91  
ENSMUSG 2030.439 -0.22156 0.03733 0.826765 NAx97  
ENSMUSG 1460.05 -0.04054 0.976146 0.9566 NAx98  
ENSMUSG 2251.367 -0.11228 0.42602 0.971757 NAx91  
ENSMUSG 194.356 -0.12501 0.78828 0.888134 NAx92  
ENSMUSG 121.051 -0.10989 0.03733 0.826765 NAx97  
ENSMUSG 376.1849 0.045134 0.820622 0.975198 NAx92  
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ENSMUSG 152.3235 0.304312 0.076122 0.804968 NAx91  
ENSMUSG 156.151 0.540964 0.958295 NAx95  
ENSMUSG 3332.733 0.078694 0.487184 0.92541 NAx94  
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ENSMUSG 271.5509 0.078147 0.16653 0.92747 NAx92  
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ENSMUSG 618.8323 0.23799 0.03733 0.826765 NAx97  
ENSMUSG 507.7473 0.188994 0.52802 0.88018 NAx1  
ENSMUSG 76.557 -0.14666 0.577904 0.939565 NAx1  
ENSMUSG 122.919 -0.03579 0.786178 0.976285 NAx4  
ENSMUSG 2034.928 -0.32923 0.143977 0.930939 NAx5  
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ENSMUSG 321.992 -0.20937 0.42836 0.83131 NAx7  
ENSMUSG 162.542 -0.16399 0.445327 0.92104 NAx9  
ENSMUSG 3376.264 -0.15626 0.61373 0.838291 NAx9  
ENSMUSG 107.128 -0.07128 0.958295 NAx95  
ENSMUSG 1284.752 -0.01633 0.894248 0.995058 NAx9  
ENSMUSG 927.7636 -0.01714 0.95912 0.846125 NAx9  
ENSMUSG 750.6762 -0.15148 0.252325 0.801022 NAx9  
ENSMUSG 1225.768 0.088846 0.810931 0.971948 NAx9  
ENSMUSG 1650.8 0.11167 0.748755 0.845365 NAx2  
ENSMUSG 1015.912 0.062597 0.96808 0.946541 NAx9  
ENSMUSG 195.439 0.339552 0.596985 0.923362 NAx92  
ENSMUSG 2005.315 -0.14575 0.239477 0.877904 NAx9  
ENSMUSG 1225.717 0.092141 0.03733 0.826765 NAx97  
ENSMUSG 112.267 0.039172 0.14486 0.817103 NAx9  
ENSMUSG 649.204 0.505058 0.97181 0.50615 NAx5  
ENSMUSG 634.6736 0.301199 0.099961 0.80131 NAx1  
ENSMUSG 1504 0.205717 0.136306 0.79709 NAx9  
ENSMUSG 1926.561 0.22382 0.20543 0.864412 NAx92  
ENSMUSG 1881.185 -0.2521 0.160135 0.837724 NAx9  
ENSMUSG 135.8905 -0.34307 0.01346 0.829122 NAx2  
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ENSMUSG 507.7473 0.188994 0.52802 0.88018 NAx1  
ENSMUSG 9913.718 0.190651 0.068812 0.872073 NAx91  
ENSMUSG 304.19 0.27728 0.20448 0.590424 NAx92



ENSMUSGE 4597.218 -0.001667 0.986193 0.989826 Nufai010  
ENSMUSGE 1913.384 -0.07724 0.478723 0.818698 Nufai011  
ENSMUSGE 2835.46 -0.013023 0.879682 0.914382 Nufai012  
ENSMUSGE 5958.066 -0.02439 0.586156 0.897079 Nufai013  
ENSMUSGE 2889.414 0.062395 0.524538 0.875849 Nufai014  
ENSMUSGE 1781.229 -0.039177 0.611727 0.906386 Nufai015  
ENSMUSGE 7086.729 -0.000706 0.320478 0.959799 Nufai016  
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ENSMUSG 303.9809 -0.0335 0.93474 0.993



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ENSMUSGC 10.40405 -1.13139 0.147178 NA Nppa  
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ENUSMSGRRala	2664.163	0.8279	0.4593	0.835234	ENUSMSGRRala	2720.368	0.1	0.41078	0.91757
ENUSMSGRRala	788.4142	-0.0006	0.4383	0.914073	ENUSMSGRRala	747.8215	0.025009	0.88375	0.885242
ENUSMSGRRalp1	288.977	0.249556	0.0005	0.124801	ENUSMSGRRalp1	2212.816	0.04546	0.52186	0.932571
ENUSMSGRRalp1	2587.497	-0.0005	0.570065	0.894572	ENUSMSGRRalp1	2620.828	0.093511	0.90959	0.933815
ENUSMSGRRalp1	738.000	-0.0001	0.9845	0.9845	ENUSMSGRRalp1	607.044	0.0001	0.91781	0.933815
ENUSMSGRRalgs	394.616	0.8112	0.84773	0.972374	ENUSMSGRRalgs	3710.917	0.10491	0.33781	0.972374
ENUSMSGRRalgs	48.448	0.13932	0.04668	0.330693	ENUSMSGRRalgs	4087.094	-0.002073	0.97081	0.99061
ENUSMSGRRalp1	245.347	0.12554	0.10773	0.742059	ENUSMSGRRalp1	219.883	0.1334	0.26207	0.88515
ENUSMSGRRalp1	215.000	-0.0001	0.9845	0.9845	ENUSMSGRRalp1	607.044	0.0001	0.91781	0.933815
ENUSMSGRRalgy	226.813	0.21008	0.88794	0.983434	ENUSMSGRRalgy	1967.567	-0.13148	0.22031	0.866304
ENUSMSGRRalgy	119.248	0.092829	0.44479	0.83239	ENUSMSGRRalgy	1002.098	0.08482	0.27243	0.88665
ENUSMSGRRamac	713.2335	-0.09143	0.43137	0.836701	ENUSMSGRRamac	611.5317	-0.28244	0.04668	0.700024
ENUSMSGRRamp	471.315	-0.0001	0.9845	0.9845	ENUSMSGRRamp	607.044	0.0001	0.91781	0.933815
ENUSMSGRRamp1	509.784	-0.14153	0.10381	0.557399	ENUSMSGRRamp1	457.46	-0.0848	0.09461	0.795735
ENUSMSGRRamp1	93.13564	0.18208	0.154294	0.57989	ENUSMSGRRamp1	1043.253	0.182482	0.2646	0.051
ENUSMSGRRamp1	543.028	0.0001	0.9845	0.9845	ENUSMSGRRamp1	558.0575	-0.1452	0.84054	0.97589
ENUSMSGRRan	317.171	0.09861	2.7172	0.000034	ENUSMSGRRan	278.0975	-0.014	0.29715	0.912328
ENUSMSGRRan	106.987	-0.02121	0.178	0.000046	ENUSMSGRRan	102.0744	-0.014	0.29715	0.912328
ENUSMSGRRanb1	128.813	0.08063	0.48264	0.83882	ENUSMSGRRanb1	1136.125	0.03387	0.396192	0.917257
ENUSMSGRRanb1	192.9127	-0.02069	0.85629	0.98283	ENUSMSGRRanb1	168.674	-0.14178	0.01892	0.917257
ENUSMSGRRanb2	3075.873	-0.00426	0.97881	0.99369	ENUSMSGRRanb2	2012.225	0.20698	0.1834	0.828492
ENUSMSGRRanb2	215.000	-0.0001	0.9845	0.9845	ENUSMSGRRanb2	607.044	0.0001	0.91781	0.933815
ENUSMSGRRanb3	567.607	0.1192	0.38882	0.80658	ENUSMSGRRanb3	499.0592	0.14837	0.925082	0.99306
ENUSMSGRRanb6	551.0374	-0.05358	0.93499	0.94664	ENUSMSGRRanb6	535.826	0.19297	0.268779	0.887575
ENUSMSGRRanb9	2269.484	-0.0004	0.96388	0.99501	ENUSMSGRRanb9	213.635	0.08928	0.40376	0.917257
ENUSMSGRRanb9	484.000	-0.0001	0.9845	0.9845	ENUSMSGRRanb9	607.044	0.0001	0.91781	0.933815
ENUSMSGRRap1	219.1541	0.00028	0.98483	0.98715	ENUSMSGRRap1	207.4137	0.000062	0.61583	0.947749
ENUSMSGRRap1a	1427.832	-0.09139	0.40570	0.835475	ENUSMSGRRap1a	1251.041	-0.25116	0.15835	0.873749
ENUSMSGRRap1b	1991.957	0.00743	0.78207	0.992526	ENUSMSGRRap1b	1827.08	0.03598	0.784552	0.976207
ENUSMSGRRap1b	607.1083	0.00054	0.59652	0.867245	ENUSMSGRRap1b	548.219	-0.014	0.29715	0.912328
ENUSMSGRRap1b	106.987	-0.02121	0.178	0.000046	ENUSMSGRRap1b	102.0744	-0.014	0.29715	0.912328
ENUSMSGRRap1gds1	992.2156	0.00343	0.71956	0.94186	ENUSMSGRRap1gds1	8419.615	-0.18127	0.10051	0.801444
ENUSMSGRRap1g2a	41.021	0.13437	0.19311	0.506708	ENUSMSGRRap1g2a	3407.764	-0.08818	0.52667	0.941474
ENUSMSGRRap1g2									



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ENSMUSG 248.7200 -0.05396 0.699257 0.938886 Pwclt  
ENSMUSG 3111.175 0.744132 0.464612 0.930824 Pwh  
ENSMUSG 790.7224 0.12326 0.330932 0.752178 Pw  
ENSMUSG 401.0668 0.087448 0.534971 0.880733 Pwmp2  
ENSMUSG 944.9310 0.101803 0.23699 0.912925 Pwmp4  
ENSMUSG 147.146 0.13123 0.30702 0.645051 Pwpl  
ENSMUSG 366.6396 -0.49725 0.001146 0.036093 Pwplp1  
ENSMUSG 156.4539 -0.04222 0.817303 0.965736 Pycard  
ENSMUSG 114.6604 -0.22847 0.272265 0.7223 Pycr1  
ENSMUSG 682.0558 0.071708 0.000000 0.979198 Pycr2  
ENSMUSG 454.8071 0.055311 0.077464 0.952535 Pycr3  
ENSMUSG 18375.89 0.120622 0.225921 0.672685 Pylg  
ENSMUSG 210.0993 0.073369 0.640057 0.916343 Pylb  
ENSMUSG 441.2313 0.07134 0.511405 0.807898 Pylp  
ENSMUSG 1637.26 0.08418 0.454152 0.808931 Pylp1  
ENSMUSG 1289.758 0.094904 0.328258 0.809824 Pylp2  
ENSMUSG 463.6441 -0.11469 0.49895 0.862973 Pylp1  
ENSMUSG 353.5885 0.02373 0.855615 0.974154 Pylpwt1  
ENSMUSG 142.9502 -0.02693 0.902055 0.984512 Pylpwt2  
ENSMUSG 835.2062 -0.03403 0.81712 0.95666 Pylpwt  
ENSMUSG 1307.611 -0.11675 0.253912 0.704001 Qwrs1  
ENSMUSG 779.715 -0.19066 0.027943 0.255775 Qr1  
ENSMUSG 2592.513 0.025472 0.941435 0.971179 Qr1  
ENSMUSG 355.9408 0.08526 0.475658 0.850919 Qr1p  
ENSMUSG 263.6947 -0.72134 7.566-05 0.005363 Qrct  
ENSMUSG 68.614 -0.42946 0.001431 0.041661 Qrct  
ENSMUSG 28.9953 -0.02114 0.955798 0.958784 Qrct  
ENSMUSG 73.0163 -0.40672 0.89865 0.95951 Qrct  
ENSMUSG 14.37825 -1.63143 0.001798 Na Qrflp1  
ENSMUSG 1718.357 0.053323 0.585412 0.899317 Qrflp1  
ENSMUSG 350.6525 0.093176 0.647306 0.848419 Qrflp1  
ENSMUSG 872.4475 0.021259 0.979738 Qrflp1  
ENSMUSG 969.5062 -0.20024 0.1808 0.617841 Qrflp1  
ENSMUSG 862.4655 -0.31595 0.031117 0.268324 Qrflp2  
ENSMUSG 290.8231 -0.05139 0.762677 0.955139 Qrflp1  
ENSMUSG 383.852 0.04692 0.902055 0.984512 Qrflp2  
ENSMUSG 1071.092 -0.04514 0.858583 0.983008 Qrflp2  
ENSMUSG 387.5122 0.05186 0.67827 0.930542 R3hdm1  
ENSMUSG 12166.64 0.066013 0.487192 0.858812 R3hdm1  
ENSMUSG 13904.49 0.13262 0.083323 0.465793 R3hdm2  
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ENSMUSG 1243.248 -0.21151 0.33108 0.906263 R4f1p2  
ENSMUSG 1548.778 0.016548 0.972282 0.98984 R4f1



NUMSUG	1317.589	-0.07784	0.571231	0.042912	Rbm1a
NUMSUG	558.6919	0.03824	0.788306	0.07881	Rbm1
NUMSUG	631.6997	-0.00005	0.072555	0.00005	Rbm2
NUMSUG	138.177	0.01986	0.08644	0.09558	Rbm3
NUMSUG	1076.604	0.20674	0.26149	0.06442	Rbm4
NUMSUG	124.601	-0.01199	0.93487	0.99798	Rbm5
NUMSUG	191.2684	-0.0138	0.89428	0.99858	Rbm6
NUMSUG	1200.941	-0.21147	0.07161	0.54729	Rbm7
NUMSUG	488.710	0.17422	0.33501	0.90371	Rbm8
NUMSUG	724.6156	-0.04242	0.731178	0.97228	Rbm9
NUMSUG	35.2627	0.54447	0.167459	0.84222	Rbm10
NUMSUG	166.9479	-0.00001	0.00001	0.00001	Rbm11
NUMSUG	146.9479	0.216478	0.264196	0.88134	Rbm12
NUMSUG	1334.348	-0.02884	0.624396	0.953234	Rbm13
NUMSUG	229.429	-0.05785	0.454599	0.93063	Rbm14
NUMSUG	1031.367	-0.2461	0.00001	0.00001	Rbm15
NUMSUG	1435.208	0.107091	0.472733	0.917257	Rbm16
NUMSUG	186.774	-0.13424	0.2209	0.866104	Rbm17
NUMSUG	5284.782	-0.22776	0.045079	0.728832	Rbm18
NUMSUG	178.9457	0.07175	0.00001	0.00001	Rbm19
NUMSUG	142.845	-0.08843	0.167075	0.97257	Rbm20
NUMSUG	847.3388	-0.12347	0.378993	0.971257	Rbm21
NUMSUG	344.8003	0.09911	0.513121	0.93058	Rbm22
NUMSUG	307.7973	-0.00001	0.00001	0.00001	Rbm23
NUMSUG	312.418	0.07768	0.05005	0.97825	Rbm24
NUMSUG	244.3124	0.17662	0.360289	0.91423	Rbm25
NUMSUG	547.2511	0.19424	0.396516	0.917257	Rbm26
NUMSUG	751.981	-0.00001	0.00001	0.00001	Rbm27
NUMSUG	208.1906	0.093141	0.28792	0.953234	Rbm28
NUMSUG	186.774	0.156241	0.282792	0.892412	Rbm29
NUMSUG	876.952	0.046588	0.736644	0.967344	Rbm30
NUMSUG	139.8959	-0.04707	0.407967	0.917257	Rbm31
NUMSUG	186.774	0.04411	0.00001	0.00001	Rbm32
NUMSUG	142.845	0.38173	0.348675	0.91562	Rbm33
NUMSUG	469.992	-0.03285	0.378839	0.916995	Rbm34
NUMSUG	244.6972	0.03825	0.8743	0.9153	Rbm35
NUMSUG	61.1638	0.0217	0.00001	0.00001	Rbm36
NUMSUG	23.7027	0.755718	0.210896	0.864412	Rbm37
NUMSUG	425.0249	0.02647	0.116698	0.91834	Rbm38
NUMSUG	129.425	0.13823	0.04049	0.917257	Rbm39
NUMSUG	68.2343	0.11607	0.00001	0.00001	Rbm40
NUMSUG	496.1088	0.061828	0.18951	0.85698	Rbm41
NUMSUG	91.047	-0.10129	0.548091	0.923239	Rbm42
NUMSUG	155.558	0.01878	0.607925	0.946609	Rbm43
NUMSUG	200.159	0.09316	0.00001	0.00001	Rbm44
NUMSUG	516.222	0.004564	0.9742	0.996146	Rbm45
NUMSUG	80.2625	0.292409	0.309701	0.918538	Rbm46
NUMSUG	413.5255	0.25688	0.11338	0.80923	Rbm47
NUMSUG	45.09	0.00001	0.00001	0.00001	Rbm48
NUMSUG	77.1931	0.256983	0.025023	0.883971	Rbm49
NUMSUG	557.703	0.165847	0.338722	0.907907	Rbm50
NUMSUG	145.6717	0.74763	0.21283	0.86104	Red1
NUMSUG	6157.098	-0.00001	0.00001	0.00001	Red2
NUMSUG	5671.299	0.000567	0.985533	0.999178	Red3
NUMSUG	2401.267	0.013586	0.04823	0.92499	Red4
NUMSUG	143.0571	0.20301	0.334804	0.907907	Red5
NUMSUG	17637.03	0.011235	0.932991	0.9306	Red6
NUMSUG	498.21	0.00001	0.00001	0.00001	Red7
NUMSUG	112.305	-0.0109	0.181449	0.925234	Red8
NUMSUG	7				

[illegible]



ENSMUSG 256.0541 -0.037806 0.793492 0.959799 Rcd1t  
ENSMUSG 534.0348 -0.21101 0.134414 0.547651 Rcd1  
ENSMUSG 869.1336 -0.02516 0.184516 0.914344 Rcd1p  
ENSMUSG 231.5864 -0.140624 0.360891 0.792797 Rcd1  
ENSMUSG 1152.01 -0.2041 0.134326 0.547427 Rcd1  
ENSMUSG 9231.35 -0.07228 0.570324 0.893192 Rcd2  
ENSMUSG 341.5426 -0.11884 0.073946 0.801757 Rcd3  
ENSMUSG 574.4313 0.089749 0.431237 0.827055 Rcd3  
ENSMUSG 386.3448 -0.10041 0.483722 0.85636 Rcd2  
ENSMUSG 475.4282 -0.11383 0.375529 0.808885 Rcd3  
ENSMUSG 215.4224 -0.03015 0.184516 0.914344 Rcd1p  
ENSMUSG 10.48894 0.302586 0.612406 NA Rcdn  
ENSMUSG 16.20069 -0.85934 0.066824 NA Rd3  
ENSMUSG 416.6182 -0.06043 0.692105 0.934101 Rcd10  
ENSMUSG 1151.775 -0.00277 0.500191 0.737742 Rcd11  
ENSMUSG 51.54103 -0.56921 0.042543 0.643636 Rcd12  
ENSMUSG 534.9422 -0.139386 0.277196 0.912715 Rcd13  
ENSMUSG 889.0477 -0.24786 0.057619 0.720747 Rcd14  
ENSMUSG 178.296 0.216566 0.212759 0.9367 Rcd5  
ENSMUSG 225.9844 -0.17096 0.258829 0.970841 Rcd1  
ENSMUSG 5610.252 -0.04374 0.757469 0.951513 Rcd  
ENSMUSG 97.95878 0.574968 0.009132 0.134662 Rcd8  
ENSMUSG 412.7998 -0.01516 0.901593 0.985633 Rcd6  
ENSMUSG 548.0003 0.021294 0.267827 0.973168 Rcd1  
ENSMUSG 87.03752 0.382384 0.127253 0.534725 Rcd1  
ENSMUSG 605.5029 0.129428 0.274094 0.724254 Rcd1  
ENSMUSG 19.76548 0.030917 0.950809 NA Rcd1t  
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ENSMUSG 5649.658 -0.29706 0.001877 0.129494 Rcd1  
ENSMUSG 2382.317 -0.18379 0.21159 0.65845 Rcd1  
ENSMUSG 133.3155 -0.27977 0.176973 0.61401 Rcd1  
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ENSMUSG 510.9878 -0.01944 0.202417 0.558066 Rcd1  
ENSMUSG 120.1887 -0.1562 0.316717 0.736348 Rcd1  
ENSMUSG 813.4692 -0.04436 0.656452 0.923929 Rcd1  
ENSMUSG 187.9067 -0.10298 0.504306 0.883579 Rcd1  
ENSMUSG 1166.179 0.039586 0.40961 0.958066 Rcd1  
ENSMUSG 635.8793 -0.04103 0.019693 0.21168 Rcd1  
ENSMUSG 7530.962 -0.076028 0.414917 0.820184 Rcd1  
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ENSMUSG 282.803 -0.12522 0.397602 0.812127 Rcd1  
ENSMUSG 44.16196 -0.08352 0.089133 0.558066 Rcd1  
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ENSMUSG 108.6057 -0.50374 0.03313 0.278602 Rcd1  
ENSMUSG 12.13385 0.120126 0.045284 NA Rcd1  
ENSMUSG 15.10013 -0.12741 0.10676 NA Rcd1  
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ENSMUSG 7643.602 -0.19388 0.12138 0.527513 Rcd1  
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ENSMUSG 1027.898 0.125473 0.201922 0.6112 Rcd1  
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ENSMUSG 87.01623 0.244552 0.267846 0.718054 Rcd1  
ENSMUSG 228.4094 0.103851 0.541934 0.881832 Rcd1  
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ENSMUSG 412.6357 -0.13451 0.000839 0.018897 Rcd1  
ENSMUSG 2855.078 0.003038 0.030384 0.958003 Rcd1  
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ENSMUSG 633.7944 0.089527 0.504981 0.866883 Rcd1  
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ENSMUSG 17.43806 0.62232 0.195117 NA Rcd1  
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ENSMUSG 1202.868 0.006868 0.955274 0.991331 Rcd1  
ENSMUSG 3279.538 0.10499 0.242682 0.690216 Rcd1  
ENSMUSG 199.763 0.354935 0.042154 0.316822 Rcd1  
ENSMUSG 252.2173 -0.05005 0.717197 0.944596 Rcd1  
ENSMUSG 3741.574 -0.2381 0.074627 0.412639 Rcd1  
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ENSMUSG 202.5612 0.103534 0.535017 0.837893 Rcd1  
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ENSMUSG 786.7508 0.028567 0.977994 0.974728 Rcd1  
ENSMUSG 710.864 -0.17433 0.161519 0.95697 Rcd1  
ENSMUSG 3573.145 -0.0126 0.971722 0.956453 Rcd1  
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ENSMUSG 133.861 -0.79993 0.03567 0.238834 Rcd1  
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ENSMUSG 587.959 -0.26918 0.04466 0.324991 Rcd1  
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ENSMUSG 1141.235 -0.08207 0.459222 0.840244 Rcd1  
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ENSMUSG 1080.685 -0.0847 0.06448 0.339628 Rcd1  
ENSMUSG 33.4648 0.046385 0.898435 0.985633 Rcd1  
ENSMUSG 215.0622 -0.08222 0.65932 0.924506 Rcd1  
ENSMUSG 2429.711 -0.21619 0.046385 0.924506 Rcd1  
ENSMUSG 1614.453 0.075202 0.378048 0.801561 Rcd1  
ENSMUSG 1341.945 0.057161 0.542001 0.883182 Rcd1  
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ENSMUSG 2581.732 0.067874 0.023232 0.904887 Rcd1

ENSMUSG 5630.671 -0.07724 0.545078 0.938063 Rcd1  
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ENSMUSG 218.5474 -0.259777 0.154901 0.87724 Rcd1  
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ENSMUSG 1454.424 -0.09474 0.055016 0.939565 Rcd1  
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ENSMUSG 27.71717 -0.45403 0.075453 0.767994 Rcd1  
ENSMUSG 692.8192 -0.114603 0.393122 0.912577 Rcd1  
ENSMUSG 996.778 -0.15039 0.333593 0.895807 Rcd1  
ENSMUSG 316.006 0.149091 0.671147 0.95684 Rcd1  
ENSMUSG 214.6124 -0.43881 0.075453 0.767994 Rcd1  
ENSMUSG 216.025 0.29575 0.075453 0.767994 Rcd1  
ENSMUSG 1453.383 0.041171 0.68837 0.96908 Rcd1  
ENSMUSG 1167.09 -0.07893 0.051091 0.929089 Rcd1  
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ENSMUSG 214.7621 -0.27859 0.248484 0.877904 Rcd1  
ENSMUSG 354.394 0.019438 0.89418 0.995558 Rcd1  
ENSMUSG 230.6171 -0.04431 0.840055 0.97681 Rcd1  
ENSMUSG 5.559443 -0.27062 0.666121 NA Rcd1  
ENSMUSG 1330.529 0.080447 0.469377 0.925155 Rcd1  
ENSMUSG 355.263 0.027765 0.833029 0.981118 Rcd1  
ENSMUSG 1649.616 -0.05232 0.621447 0.953199 Rcd1  
ENSMUSG 982.038 -0.06213 0.691632 0.960161 Rcd1  
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ENSMUSG 1703.278 -0.01247 0.926384 0.93906 Rcd1  
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ENSMUSG 494.087 -0.05393 0.900675 0.953903 Rcd1  
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ENSMUSG 111.668 0.703427 0.089133 0.558066 Rcd1  
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ENSMUSG 3527.236 0.066672 0.807897 0.976822 Rcd1  
ENSMUSG 1092.901 0.037499 0.958003 0.958003 Rcd1  
ENSMUSG 89.3527 0.068675 0.518753 0.877724 Rcd1  
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ENSMUSG 42.8557 -0.77022 0.625E-07 0.00034 Rcd1  
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ENSMUSG 24.9578 0.840707 0.709454 Rcd1  
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ENSMUSG 211.6427 0.009794 0.940298 0.974728 Rcd1  
ENSMUSG 402.186 -0.01627 0.950526 0.910989 Rcd1  
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ENSMUSG 299.356 0.057784 0.728806 0.969631 Rcd1  
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ENSMUSG 134.613 0.36163 0.09133 0.256757 Rcd1  
ENSMUSG 383.4745 -0.13194 0.96419 0.923329 Rcd1  
ENSMUSG 6826.76 -0.17275 0.13818 0.860096 Rcd1  
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ENSMUSG 776.871 0.03063 0.79668 0.97681 Rcd1  
ENSMUSG 7644.412 0.14177 0.23898 0.917257 Rcd1  
ENSMUSG 64.3444 0.02394 0.41641 0.917257 Rcd1  
ENSMUSG 160.364 -0.06194 0.73578 0.96734 Rcd1  
ENSMUSG 1752.966 -0.0147 0.88335 0.98964 Rcd1  
ENSMUSG 110.3166 0.009826 0.958003 0.958003 Rcd1  
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ENSMUSG 524.8535 0.171489 0.43334 0.918434 Rcd1  
ENSMUSG 2164.924 0.086631 0.045014 0.971257 Rcd1  
ENSMUSG 23.6122 0.486607 0.045014 0.971257 Rcd1  
ENSMUSG 2116.006 -0.05426 0.056197 0.954575 Rcd1  
ENSMUSG 455.2649 0.260298 0.209781 0.884412 Rcd1  
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ENSMUSG 123.0102 0.108244 0.958003 0.958003 Rcd1  
ENSMUSG 13.3437 0.137675 0.44393 0.92014 Rcd1  
ENSMUSG 10.2435 0.05141 0.98353 NA Rcd1  
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ENSMUSG 3187.94 -0.21969 0.20732 0.917257 Rcd1  
ENSMUSG 1558.689 -0.29984 0.02429 0.830702 Rcd1  
ENSMUSG 526.4605 0.25888 0.14219 0.93707 Rcd1  
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ENSMUSG 1431.8 0.04732 0.64401 0.95015 Rcd1  
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ENSMUSG 2579.065 0.122203 0.37012 0.88538 Rcd1  
ENSM



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ENSMUSG 358.4678 0.048478 0.732579 0.944956 Rlj1p2  
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ENSMUSG 37.32234 -0.05215 0.862524 0.975055 Rlmp3b  
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ENSMUSG 101.096 -0.01764 0.881623 0.986044 Rlm1  
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ENSMUSG 9.447136 -0.275 0.620343 Rm1 Rlm1  
ENSMUSG 11430.48 -0.17705 0.360106 0.90913 Rlm1  
ENSMUSG 16113.14 -0.11914 0.01403 0.909046 Rlm1  
ENSMUSG 5



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ENSMUSG 1038.609 -0.02693 0.885773 0.98977 Rph4  
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ENSMUSG 672.2320 0.03436 0.702652 0.948478 Rp2s6+12  
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ENSMUSG 1398.282 0.091373 0.376737 0.801213 Rp2s6+3  
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ENSMUSG 131.4992 0.06392 0.63392 0.914073 Rp2s6+6  
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ENSMUSG 44.38921 0.07732 0.80869 0.963455 Rp2s9+7  
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ENSM



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ENSMUSG 748.5083 0.146094 0.273787 0.724244 Thoc5  
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ENSMUSG 4207.532 0.070751 0.468257 0.923329 Ubn5  
ENSMUSG 2996.831 -0.11416 0.125912 0.678359 Ubn5  
ENSMUSG 210.676 0.000172 0.988208 0.999999 Ubn5  
ENSMUSG 794.2397 0.083203 0.988224 0.997258 Ubn1  
ENSMUSG 1185.595 0.147708 0.21054 0.971257 Ubn1  
ENSMUSG 439.5967 0.174058 0.616543 0.865157 Ubn11  
ENSMUSG 410.748 0.02956 0.823648 0.989297 Ubn14  
ENSMUSG 841.0072 -0.73893 3.70E-08 2.70E-05 Ubn14b  
ENSMUSG 543.7772 0.157041 0.244178 0.877904 Ubn15  
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ENSMUSG 542.7603 0.18802 0.000000 0.000000 Ubn18  
ENSMUSG 155.4602 0.0238 0.919085 0.990558 Ubn18  
ENSMUSG 373.2893 0.011979 0.932399 0.99306 Ubn25  
ENSMUSG 467.9618 0.067382 0.66928 0.959676 Ubn2  
ENSMUSG 454.064 -0.10888 0.499442 0.927825 Ubn2  
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ENSMUSG 295.602 0.251902 0.123286 0.814691 Ubn1  
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ENSMUSG 213.4214 0.55872 0.12211 0.000000 Ubn1g  
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ENSMUSG 628.8253 0.009001 0.947196 0.994601 Vap14  
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ENSMUSG 1815.565 0.051599 0.762674 0.962215 Vap3  
ENSMUSG 103.557 -0.04006 0.869631 0.988079 Vap3  
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ENSMUSG 488.6244 0.10232 0.888065 0.925517 Vang2  
ENSMUSG 1283.447 -0.1436 0.80391 0.917202 Vap3  
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ENSMUSG 913.2913 0.099138 0.403429 0.917257 Var12  
ENSMUSG 1741.173 -0.3338 0.00114 0.221768 Vap1  
ENSMUSG 607.588 0.000000 0.000000 0.000000 Vap1  
ENSMUSG 362.9457 0.28715 0.199534 0.863016 Vapn  
ENSMUSG 568.5691 0.208419 0.444748 0.936241 Vapn  
ENSMUSG 1204.088 -0.05382 0.641815 0.953903 Vap1  
ENSMUSG 1011.478 -0.12839 0.84996 0.93329 Vap1  
ENSMUSG 266.6193 0.034621 0.988126 0.999999 Vap1  
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ENSMUSG 276.0045 -0.0073 0.577982 0.943113 Vap3  
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ENSMUSG 5466.247 -0.06461 0.557881 0.939565 Vcl1  
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ENSMUSG 364.061 -0.14129 0.30161 0.888538 Vcl2c  
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ENSMUSG 125.1203 0.08641 0.468878 0.927825 Vcl3  
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ENSMUSG 376.475 0.153164 0.666919 0.959676 Vcl1  
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ENSMUSG 2819.888 -0.28857 0.037068 0.7354 Vcl1  
ENSMUSG 234.5574 0.118748 0.957354 Vll1  
ENSMUSG 187.9427 0.1297 0.95626 0.954508 Vcl1  
ENSMUSG 205.105 0.566404 3.38E-06 0.04549 Vlm  
ENSMUSG 1444.762 0.099433 0.62479 0.953234 Vcl1  
ENSMUSG 1303.216 0.071737 0.503972 0.927825 Vlap39  
ENSMUSG 992.8651 0.129836 0.398736 0.917257 Vap1  
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ENSMUSG 1033.797 0.003848 0.987623 0.999999 Vapn  
ENSMUSG 156.6742 0.254402 0.20239 0.864417 Vcl1  
ENSMUSG 215.6869 0.071169 0.728816 0.99306 Vcl2  
ENSMUSG 1268.713 0.077766 0.758584 0.99167 Vclor11  
ENSMUSG 2858.598 0.078654 0.987623 0.999999 Vcl1  
ENSMUSG 1383.647 0.000000 0.000000 0.000000 Vcl1  
ENSMUSG 492.9658 -0.10475 0.283556 0.826412 Vvmac  
ENSMUSG 74.34084 0.882593 0.932154 0.693599 Vmm219  
ENSMUSG 74.34084 0.882593 0.932154 0.693599 Vmm219  
ENSMUSG 45.42355 0.195951 0.849476 Vmm219  
ENSMUSG 69.1076 -0.01829 0.94309 0.94798 Vmm284  
ENSMUSG 6.564781 0.172851 0.798188 NA Vmm285  
ENSMUSG 23.3576 0.10005 0.023672 0.97199 Vmm287  
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ENSMUSG 28.5007 -0.06053 0.89319 0.995558 Vmm1  
ENSMUSG 4030.223 0.119449 0.396857 0.971257 Vopp1  
ENSMUSG 1549.47 -0.03382 0.79391 0.97164 Vpp11  
ENSMUSG 1219.265 0.259088 0.044733 0.693599 Vpp13a  
ENSMUSG 1465.06 0.045531



ENUSM536	154.1551	-1.02146	0.09965	0.70868	Vsig8
ENUSM52	214.9116	-0.24818	0.32343	0.88607	Vsig7
ENUSM57	7779.457	-0.22614	0.20141	0.86439	Vsig6
ENUSM58	2658.931	-0.22614	0.20141	0.86439	Vsig5
ENUSM59	1317.1198	-0.22614	0.27255	0.86439	Vsig4
ENUSM62	421.4612	-0.00363	0.97815	0.99412	Vsig3
ENUSM55	256.4241	-0.41746	0.02295	0.54802	Vsig2
ENUSM56	273.6783	-0.41746	0.02295	0.54802	Vsig1
ENUSM54	78.5785	-0.04226	0.90562	0.68627	Wsig1
ENUSM58	915.9535	-0.14818	0.50802	0.70974	Vsig1
ENUSM57	1738.857	-0.17395	-0.1224	0.81338	Vsig1
ENUSM56	773.665	-0.17395	-0.1224	0.81338	Vsig1
ENUSM57	1680.577	0.24234	0.2493	0.87790	Wsig1
ENUSM58	184.1396	0.41533	0.02654	0.56592	Vsig1
ENUSM52	220.563	-0.0988	0.70603	0.56594	Vsig1
ENUSM59	49.4922	0.02928	0.94898	0.98552	Vsig1
ENUSM58	29.8962	-0.1171	0.39889	0.98552	Vsig1
ENUSM56	302.146	0.00214	0.87014	0.98822	Wsig1
ENUSM58	2528.772	-0.17015	-0.19458	0.98727	Wsig2
ENUSM57	137.516	-0.18468	0.79037	0.94040	Vsig1
ENUSM56	270.469	-0.18468	0.79037	0.94040	Vsig1
ENUSM59	169.7424	-0.11688	0.54824	0.98304	Vsig1
ENUSM56	165.714	0.427201	0.0314	0.62697	Vsig2
ENUSM57	175.0558	-0.07901	0.56936	0.95954	Vsig1
ENUSM58	42.8984	-0.07901	0.56936	0.95954	Vsig1
ENUSM57	773.852	-0.07983	0.28432	0.942574	Vsig1
ENUSM56	2250.444	0.140328	0.32384	0.88867	Vsig1
ENUSM57	1300.736	0.137504	0.71324	0.88867	Wsig1
ENUSM58	1976.236	-0.04213	0.37449	0.97217	Wsig1
ENUSM59	181.6409	0.07496	0.61177	0.95678	Wsig2
ENUSM56	96.19799	-0.00684	0.83376	0.98561	Wsig1
ENUSM57	381.544	-0.06986	0.78809	0.957617	Wsig1
ENUSM58	989.1067	-0.06986	0.78809	0.957617	Wsig1
ENUSM59	10096.9	-0.07237	0.221919	0.98622	Wsig1
ENUSM56	986.4632	-0.12128	0.39895	0.90772	Wsig1
ENUSM59	4982.995	-0.09499	0.33067	0.97153	Wsig2
ENUSM58	770.3283	-0.09499	0.33067	0.97153	Wsig2
ENUSM57	808.6608	0.127921	0.306945	0.98358	Wsig1
ENUSM59	1197.055	-0.04371	0.740269	0.96881	Wsig1
ENUSM57	1824.485	-0.14804	0.26087	0.88867	Wsig1
ENUSM58	1471.636	-0.09213	0.37449	0.97217	Wsig1
ENUSM59	1838.236	-0.04213	0.37449	0.97217	Wsig1
ENUSM56	2130.314	0.131277	0.345044	0.91045	Wsig1
ENUSM57	8694.714	-0.14549	0.77385	0.89149	Wsig1
ENUSM58	1183.384	-0.17413	0.84426	0.90504	Wsig1
ENUSM59	197.1104	-0.40518	0.07496	0.90504	Wsig1
ENUSM56	725.5522	0.786439	0.49459	0.4006	Wsig1
ENUSM59	1166.319	0.079444	0.59806	0.92908	Wsig1
ENUSM57	5082.672	0.139501	0.261373	0.94858	Wsig1
ENUSM58	163.9964	0.007496	0.61177	0.95678	Wsig1
ENUSM56	156.3821	0.131707	0.502747	0.974225	Wsig1
ENUSM59	233.0321	-0.14471	0.36318	0.918723	Wsig1
ENUSM58	358.633	-0.10269	0.309353	0.98834	Wsig1
ENUSM57	1387.328	-0.07496	0.61177	0.95678	Wsig1
ENUSM59	690.831	-0.09499	0.34508	0.97947	Wsig1
ENUSM58	1288.816	0.054051	0.570555	0.94212	Wsig1
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ENUSM59	1640.02	-0.07496	0.61177	0.95678	W

ENMSGUSGvaf1	3237.421	0.069209	0.041229	0.81
ENMSGUSGvaf2	2414.066	0.179589	0.080999	0.44
ENMSGUSGvafs1	2230.034	0.133952	0.335184	0.87
ENMSGUSGvafs2	1722.616	0.041657	0.782241	0.81
ENMSGUSGvcb1	377.6241	0.129975	0.46913	0.93
ENMSGUSGvcb2	910.946	0.04524	0.61661	0.95
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ENMSGUSGvcb4	969.9961	0.041657	0.782241	0.81
ENMSGUSGvcb5	417.6831	0.063375	0.61907	0.97
ENMSGUSGvceat5	3360.485	0.022795	0.83169	0.95
ENMSGUSGvceat4	989.7163	0.041411	0.93402	0.40
ENMSGUSGvces1	578.32	0.04655	0.75266	0.95
ENMSGUSGvcf1b	1204.34	-0.2779	0.01896	0.22
ENMSGUSGvcfp1	941.1707	-0.28671	0.03137	0.22
ENMSGUSGvcfp2	732.0379	-0.19891	0.059446	0.44
ENMSGUSGvcfp3	2233.421	0.041657	0.782241	0.81
ENMSGUSGvcfp5	1382.862	-0.29164	0.620351	0.33
ENMSGUSGvcfp6	1543.031	-0.1523	0.267071	0.33
ENMSGUSGvcfp7	269.269	0.041657	0.850525	0.33
ENMSGUSGvcj2	231.7245	-0.30803	0.808218	0.18
ENMSGUSGvcj2b	282.257	-0.01565	0.91546	0.95
ENMSGUSGvcite	4034.448	0.040106	0.62228	0.95
ENMSGUSGvcme1	1537.591	0.071132	0.865197	0.92
ENMSGUSGvcod1	299.4168	-0.03086	0.859268	0.98
ENMSGUSGvcop1	1335.979	0.137044	0.146829	0.90
ENMSGUSGvcop2	1066.136	0.041657	0.782241	0.81
ENMSGUSGvcop3	5314.613	0.095859	0.383386	0.48
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ENMSGUSGvcop5	2016.266	0.03124	0.795799	0.93
ENMSGUSGvdc1	1548.266	0.041657	0.493248	0.93
ENMSGUSGvdc3	1239.065	0.06691	0.511294	0.88
ENMSGUSGvdc4	1683.043	0.009931	0.9521	0.90
ENMSGUSGvdc5	519.922	0.126695	0.330178	0.90
ENMSGUSGvdc6	1104.501	0.027129	0.528708	0.78
ENMSGUSGvdc7	548.266	0.041657	0.493248	0.93
ENMSGUSGvdc8	1239.065	0.06691	0.511294	0.88
ENMSGUSGvdc9	11518.35	0.048437	0.530176	0.93
ENMSGUSGvdcwae	23802.87	0.1118	0.82619	0.93
ENMSGUSGvdcwb	2506.39	0.02856	0.164046	0.46
ENMSGUSGvdcwh	1029.127	0.041657	0.782241	0.81
ENMSGUSGvdcwha	4623.081	0.021096	0.853739	0.93
ENMSGUSGvdcwhb	1314.134	0.003499	0.978052	0.95
ENMSGUSGvcyl1	2246.418	0.068517	0.99807	0.87
ENMSGUSGvcyl2	1840.269	0.041657	0.782241	0.81
ENMSGUSGvczp70	75.54408	0.183568	0.42761	0.61
ENMSGUSGzc1r1	32.92196	0.188258	0.620065	0.95
ENMSGUSGzc3	387.2984	-0.43479	0.73935	0.93
ENMSGUSGzc4	1548.266	0.041657	0.493248	0.93
ENMSGUSGzc5	115.8558	-0.10165	0.62173	0.93
ENMSGUSGzc5+ps	21.09274	-0.22444	0.58702	0.94
ENMSGUSGzc6	415.4688	-0.17273	0.418083	0.87
ENMSGUSGzcpl1	56.154	0.041657	0.62173	0.93
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ENMSGUSGzcpl11	732.1431	0.059299	0.582476	0.98
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ENMSGUSGzcpl12	232.5905	-0.11118	0.471533	0.93
ENMSGUSGzcpl14	428.1322	0.063244	0.611689	0.95
ENMSGUSGzcpl16	878.6945	-1.349914	1.53123	0.29
ENMSGUSGzcpl17	1167.136	0.041657	0.782241	0.81
ENMSGUSGzcpl18	7603.27	0.104291	0.184186	0.66
ENMSGUSGzcpl22	293.5644	0.137614	0.293936	0.77
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ENMSGUSGzcpl21	411.763	0.041657		

2826.53	ENSMUSG/Ya/2	-0.05565	0.63402	0.95648
2957.918	-ENSMUSG/Ya/2	-0.00102	0.94576	0.94798
76511	ENSMUSG/Ya/2	-0.0921	0.421034	0.91257
4157.538	ENSMUSG/Ya/2	-0.00729	0.58918	0.94875
115.2543	-ENSMUSG/Ya/2	-0.0096	0.65447	0.95705
0.08876	ENSMUSG/Ya/2	-0.1789	0.17185	0.98434
89.97734	-ENSMUSG/Ya/2	-0.48038	0.86631	0.98749
46.0637	ENSMUSG/Ya/2	-0.03376	0.44851	0.95573
37.1844	-ENSMUSG/Ya/2	-0.06484	0.94795	0.96416
770026	ENSMUSG/Ya/2s1	0.05008	0.68752	0.96008
851.664	-ENSMUSG/Ya/2s1	-0.16445	0.28869	0.88474
81.4335	ENSMUSG/Ya/2s1	-0.0378	0.67584	0.95478
53.0381	-ENSMUSG/Ya/2s1	-0.0793	0.95593	0.95478
116.278	-ENSMUSG/Ya/1b	-0.09795	0.49767	0.92785
94.4485	ENSMUSG/Ya/1b	0.015354	0.91313	0.93228
20.777	-ENSMUSG/Ya/1b	-0.04384	0.73157	0.96728
222.775	ENSMUSG/Ya/1b	0.06474	0.92478	0.9094
120.324	-ENSMUSG/Ya/1b	-0.02303	0.20796	0.86442
1482.149	ENSMUSG/Ya/1b	0.08408	0.28165	0.94242
150.515	-ENSMUSG/Ya/1b	-0.04037	0.77139	0.97216
284.34	ENSMUSG/Ya/1b	0.06474	0.78815	0.97981
262.169	ENSMUSG/Ya/2	-0.05624	0.72934	0.96691
253.401	-ENSMUSG/Ya/2	-0.00189	0.73127	0.96728
342.903	ENSMUSG/Ya/2	-0.00761	0.11292	0.80623
121.828	ENSMUSG/Ya/1	0.01127	0.92478	0.9094
75.7565	-ENSMUSG/Ya/1s1	0.02305	0.08662	0.72362
74.707	ENSMUSG/Ya/1	-0.02344	0.904	0.90558
118.826	-ENSMUSG/Ya/1s1	-0.06399	0.54484	0.83803
16.2614	ENSMUSG/Ya/2	-0.11537	0.87584	0.94798
45.8193	-ENSMUSG/Ya/2	-0.06483	0.62891	0.95358
110.269	ENSMUSG/Ya/2	-0.06831	0.88875	0.95128
180.6469	-ENSMUSG/Ya/2s1	-0.0092	0.57639	0.94212
53.1634	ENSMUSG/Ya/2s1	-0.01137	0.46114	0.87584
175.206	-ENSMUSG/Ya/2s1	-0.0373	0.51636	0.93054
502.310	ENSMUSG/Ya/2s1	0.09133	0.04967	0.70848
104.193	-ENSMUSG/Ya/2s1	-0.02192	0.36862	0.81423
16.0378	ENSMUSG/Ya/2s1	-0.00729	0.20796	0.86442
121.521	-ENSMUSG/Ya/2s1	-0.14855	0.25697	0.80482
79.9726	ENSMUSG/Ya/2s1	-0.0596	0.58216	0.94375
203.826	-ENSMUSG/Ya/2s1	-0.17265	0.2304	0.68857
205.0161	-ENSMUSG/Ya/2s1	-0.17124	0.169391	0.84806
77.8849	ENSMUSG/Ya/2s1	-0.00439	0.26618	0.87584
401.836	-ENSMUSG/Ya/2s1	-0.12709	0.367183	0.91508
114.57	ENSMUSG/Ya/2s1	-0.12348	0.471037	0.92329
204.739	ENSMUSG/Ya/2s1	0.068083	0.65039	0.94234
12.5048	ENSMUSG/Ya/2s1	0.04329	0.93145	0.97216
63.10465	-ENSMUSG/Ya/2s1	-0.00633	0.80419	0.97052
23.36193	-ENSMUSG/Ya/2s1	-0.26851	0.160542	0.87584
37.9176	-ENSMUSG/Ya/2s1	-0.7586	0.24466	0.87704
12.5048	ENSMUSG/Ya/2s1	0.04329	0.93145	0.97216
63.10465	-ENSMUSG/Ya/2s1	-0.00633	0.80419	0.97052
23.36193	-ENSMUSG/Ya/2s1	-0.26851	0.160542	0.87584
37.9176	-ENSMUSG/Ya/2s1	-0.7586	0.24466	0.87704
12.5048	ENSMUSG/Ya/2s1	0.04329	0.93145	0.97216
63.10465	-ENSMUSG/Ya/2s1	-0.00633	0.80419	0.97052
23.36193	-ENSMUSG/Ya/2s1	-0.26851	0.160542	0.87584
37.9176	-ENSMUSG/Ya/2s1	-0.7586	0.24466	0.87704
12.5048	ENSMUSG/Ya/2s1	0.04329	0.93145	0.97216
63.10465	-ENSMUSG/Ya/2s1	-0.00633	0.80419	0.97052
23.36193	-ENSMUSG/Ya/2s1	-0.26851	0.160542	0.87584
37.9176	-ENSMUSG/Ya/2s1	-0.7586	0.24466	0.87704
12.5048	ENSMUSG/Ya/2s1	0.04329	0.931	



ENSMUSGC 342.5066 -0.054669 0.79907 0.609022 Wwf  
ENSMUSGC 8548.748 -0.079522 0.340817 0.78709 Wwf  
ENSMUSGC 2392.442 -0.051856 0.578358 0.806413 Wwf1  
ENSMUSGC 1405.823 0.097277 0.359323 0.91131 Wapf1  
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ENSMUSGC 211.7374 0.23286 0.175011 0.610399 Waf2  
ENSMUSGC 1024.134 -0.010816 0.653798 0.812636 Waf2  
ENSMUSGC 4258.219 -0.01964 0.888638 0.983434 Waf1  
ENSMUSGC 1004.703 0.042861 0.676024 0.930542 Waf2  
ENSMUSGC 11994.29 0.066884 0.549145 0.885723 Waf3  
ENSMUSGC 1167.081 0.048874 0.280152 0.623366 Waf3ch1  
ENSMUSGC 5746.313 0.071283 0.093833 0.938323 Waf3ch2  
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ENSMUSGC 878.8034 0.097611 0.342142 0.778828 Waf3ch4  
ENSMUSGC 1388.308 0.117108 0.179318 0.616869 Waf3ch5  
ENSMUSGC 1951.085 0.107878 0.044951 0.812636 Waf3  
ENSMUSGC 1720.406 0.052382 0.597901 0.903271 Wbf1  
ENSMUSGC 2030.773 0.017349 0.860349 0.974482 Wbf1  
ENSMUSGC 2282.091 0.042419 0.68203 0.931738 Wbf1  
ENSMUSGC 10075.83 0.016611 0.86126 0.970526 Wbf2  
ENSMUSGC 1339.433 0.104417 0.267298 0.715725 Wbf4  
ENSMUSGC 221.7327 0.724658 0.072251 0.414687 Wbf4  
ENSMUSGC 548.0839 -0.2214 0.795514 0.435369 Wbf1  
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ENSMUSGC 5148.724 -0.02923 0.374541 0.800405 Wbf3  
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ENSMUSGC 269.6851 0.009459 0.942308 0.954145 Wbf2  
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ENSMUSGC 1009.346	-0.03433	0.792706	0.95947	Zlp423	ENSMUSGC 2914.693	-0.01843	0.854524	0.985649	Zlp740	ENSMUSGCZcwm9	616.6812	-0.03772	0.735929	0.946267	ENSMUSGCZcwm9	521.0429	-0.26967	0.042082	0.690304
ENSMUSGC 728.3204	0.115291	0.261977	0.712129	Zlp426	ENSMUSGC 697.2657	0.125267	0.387357	0.917257	Zlp746	ENSMUSGCZup1	157.3769	-0.1823	0.311276	0.759247	ENSMUSGCZup1	166.7686	0.261414	0.195064	0.861121
ENSMUSGC 890.7638	-0.017185	0.878989	0.977951	Zlp428	ENSMUSGC 913.6911	-0.11746	0.653338	0.953903	Zlp747	ENSMUSGCZcwi0	499.0257	0.171343	0.199732	0.640239	ENSMUSGCZcwi0	464.0319	0.301813	0.12234	0.813384
ENSMUSGC 52.44877	-0.14113	0.623918	0.917817	Zlp429	ENSMUSGC 191.3618	0.178793	0.299449	0.898538	Zlp748	ENSMUSGCZcwi1	82.15372	0.060681	0.783441	0.957558	ENSMUSGCZcwi1	81.76009	0.294592	0.245623	0.877904
ENSMUSGC 18.39064	0.256816	0.556369	NA	Zlp433	ENSMUSGC 151.4476	0.341553	0.153352	0.817724	Zlp748	ENSMUSGCZcwi2	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi2	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 211.4308	-0.18853	0.231832	0.679725	Zlp438	ENSMUSGC 111.4476	0.341553	0.153352	0.817724	Zlp748	ENSMUSGCZcwi3	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi3	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 31.47123	-0.031616	0.950801	0.993974	Zlp442	ENSMUSGC 103.0286	0.109795	0.217106	0.915719	Zlp748	ENSMUSGCZcwi4	519.7928	-0.01236	0.927894	0.991239	ENSMUSGCZcwi4	466.4322	-0.05062	0.711094	0.966887
ENSMUSGC 1047.032	0.024396	0.81424	0.964574	Zlp444	ENSMUSGC 315.263	0.217832	0.269138	0.896755	Zlp760	ENSMUSGCZcwi1b	46511.1	0.123088	0.122834	0.529179	ENSMUSGCZcwi1b	3983.705	-0.04838	0.414125	0.953903
ENSMUSGC 481.81146	-0.097714	0.349	0.781661	Zlp445	ENSMUSGC 257.9561	0.017523	0.91317	0.92196	Zlp763	ENSMUSGCZcwi2	1708.41	0.005346	0.953099	0.993784	ENSMUSGCZcwi2	1785.99	-0.09064	0.314563	0.900949
ENSMUSGC 320.7309	0.070657	0.643553	0.917316	Zlp446	ENSMUSGC 910.1919	0.336051	0.228221	0.888507	Zlp764	ENSMUSGCZcwi3	278.866	-0.11324	0.350193	0.781943	ENSMUSGCZcwi3	1839.756	0.006758	0.95019	0.994798
ENSMUSGC 155.8252	0.158722	0.19767	0.678793	Zlp447	ENSMUSGC 114.5822	0.200721	0.396037	0.917257	Zlp764	ENSMUSGCZcwi4	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi4	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 107.1721	-0.04003	0.67873	0.938031	Zlp451	ENSMUSGC 401.0177	0.017784	0.986876	0.990538	Zlp765	ENSMUSGCZcwi5	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi5	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 136.9489	0.107755	0.545107	0.884712	Zlp454	ENSMUSGC 569.0417	0.051741	0.743629	0.96951	Zlp770	ENSMUSGCZcwi6	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi6	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 36.79726	0.072213	0.833825	0.971111	Zlp455	ENSMUSGC 1249.169	0.11365	0.325441	0.905339	Zlp771	ENSMUSGCZcwi7	519.7928	-0.01236	0.927894	0.991239	ENSMUSGCZcwi7	466.4322	-0.05062	0.711094	0.966887
ENSMUSGC 35.56774	-0.40791	0.234192	0.861932	Zlp456	ENSMUSGC 389.4586	-0.05745	0.72058	0.966887	Zlp772	ENSMUSGCZcwi8	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi8	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 11.92425	-0.78614	0.119923	NA	Zlp457	ENSMUSGC 54.68742	0.342625	0.232329	0.868507	Zlp773	ENSMUSGCZcwi9	1708.41	0.005346	0.953099	0.993784	ENSMUSGCZcwi9	1785.99	-0.09064	0.314563	0.900949
ENSMUSGC 60.78613	-0.24806	0.407312	0.817447	Zlp458	ENSMUSGC 257.4352	0.028443	0.8543	0.98561	Zlp775	ENSMUSGCZcwi10	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi10	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 56.53197	0.063298	0.811059	0.964318	Zlp459	ENSMUSGC 901.9268	0.017889	0.885133	0.989688	Zlp777	ENSMUSGCZcwi11	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi11	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 2032.089	-0.04069	0.715688	0.941484	Zlp46	ENSMUSGC 54.17324	-0.12255	0.973919	0.95684	Zlp78	ENSMUSGCZcwi12	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi12	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 1254.034	-0.16382	0.131957	0.523326	Zlp462	ENSMUSGC 282.0843	0.122475	0.416897	0.917257	Zlp780	ENSMUSGCZcwi13	519.7928	-0.01236	0.927894	0.991239	ENSMUSGCZcwi13	466.4322	-0.05062	0.711094	0.966887
ENSMUSGC 979.9189	0.145298	0.139669	0.556069	Zlp467	ENSMUSGC 13.30391	0.331054	0.554593	0.93565	Zlp781	ENSMUSGCZcwi14	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi14	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 204.0971	-0.71789	6.78E-05	0.005	Zlp469	ENSMUSGC 217.5821	0.05094	0.796223	0.97681	Zlp783	ENSMUSGCZcwi15	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi15	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 82.49312	0.299944	0.192238	0.631194	Zlp472	ENSMUSGC 141.6275	-0.07566	0.68865	0.959742	Zlp784	ENSMUSGCZcwi16	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi16	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 15.753	-0.82392	0.115802	NA	Zlp473	ENSMUSGC 71.71381	0.208051	0.405307	0.92541	Zlp786	ENSMUSGCZcwi17	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi17	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 12.6437	-0.58829	0.283179	NA	Zlp474	ENSMUSGC 516.1242	-0.06027	0.643756	0.953903	Zlp787	ENSMUSGCZcwi18	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi18	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 201.1406	-0.08071	0.593873	0.902869	Zlp488	ENSMUSGC 683.2628	0.149548	0.233625	0.688507	Zlp788	ENSMUSGCZcwi19	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi19	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 67.15228	0.303553	0.189371	0.627932	Zlp493	ENSMUSGC 258.6968	0.039586	0.816779	0.979198	Zlp790	ENSMUSGCZcwi20	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi20	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 74.31229	-0.39746	0.152208	0.860842	Zlp503	ENSMUSGC 90.85821	0.129749	0.580012	0.942409	Zlp791	ENSMUSGCZcwi21	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi21	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 548.1134	-0.00654	0.964623	0.939874	Zlp507	ENSMUSGC 184.1661	-0.0083	0.952508	0.99478	Zlp791	ENSMUSGCZcwi22	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi22	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 91.47198	-0.10005	0.651208	0.921451	Zlp51	ENSMUSGC 184.1504	0.132698	0.499263	0.927825	Zlp800	ENSMUSGCZcwi23	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi23	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 459.5985	0.083016	0.488492	0.859092	Zlp511	ENSMUSGC 249.3769	-0.16912	0.32217	0.904023	Zlp804a	ENSMUSGCZcwi24	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi24	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 1375.889	0.141309	0.129133	0.538234	Zlp512	ENSMUSGC 30.78662	-0.04085	0.912373	0.922225	Zlp808	ENSMUSGCZcwi25	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi25	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 2538.798	-0.09515	0.215175	0.829201	Zlp513	ENSMUSGC 325.7188	0.135109	0.357023	0.913389	Zlp810	ENSMUSGCZcwi26	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi26	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 813.9625	0.056534	0.580354	0.896592	Zlp513	ENSMUSGC 372.6247	0.215139	0.155913	0.837724	Zlp81	ENSMUSGCZcwi27	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi27	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 754.3463	-0.1103	0.377721	0.801561	Zlp516	ENSMUSGC 334.4981	0.249218	0.086121	0.780433	Zlp810	ENSMUSGCZcwi28	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi28	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 286.4499	-0.12363	0.385247	0.804048	Zlp518a	ENSMUSGC 243.614	0.298057	0.062053	0.736482	Zlp811	ENSMUSGCZcwi29	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi29	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 351.1216	-0.01987	0.751731	0.873971	Zlp518b	ENSMUSGC 19.02378	-0.0035	0.954571	0.998813	Zlp812	ENSMUSGCZcwi30	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi30	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 101.5943	-0.25575	0.186471	0.623869	Zlp52	ENSMUSGC 896.9995	0.079988	0.562513	0.940761	Zlp821	ENSMUSGCZcwi31	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi31	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 770.1532	-0.00748	0.955976	0.993874	Zlp521	ENSMUSGC 97.79175	-0.09852	0.64665	0.953988	Zlp825	ENSMUSGCZcwi32	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi32	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 6521.751	0.167319	0.048964	0.337919	Zlp523	ENSMUSGC 1095.016	0.037692	0.761108	0.972695	Zlp827	ENSMUSGCZcwi33	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi33	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 615.7724	0.30748	0.262526	0.713142	Zlp524	ENSMUSGC 194.7081	-0.03123	0.883649	0.986547	Zlp830	ENSMUSGCZcwi34	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi34	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 211.9892	0.0874	0.514467	0.870255	Zlp526	ENSMUSGC 571.4541	0.140747	0.396037	0.917257	Zlp831	ENSMUSGCZcwi35	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi35	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 77.82223	0.1592	0.494602	0.86175	Zlp53	ENSMUSGC 271.7951	0.060567	0.735903	0.967344	Zlp839	ENSMUSGCZcwi36	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi36	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 1761.42	-0.04735	0.607754	0.906878	Zlp532	ENSMUSGC 306.693	-0.10936	0.487031	0.92541	Zlp83	ENSMUSGCZcwi37	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi37	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 533.6566	-0.02116	0.850113	0.972638	Zlp536	ENSMUSGC 467.417	0.002028	0.998288	0.999313	Zlp846	ENSMUSGCZcwi38	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi38	8721.375	-0.08219	0.551587	0.939655
ENSMUSGC 29.7976	-0.11671	0.7832	0.942323	Zlp54	ENSMUSGC 65.50398	0.255182	0.455163	0.9105	Zlp85	ENSMUSGCZcwi39	173.4373	0.021231	0.931725	0.989014	ENSMUSGCZcwi39	173.2764	0.271163	0.280273	0.892356
ENSMUSGC 21.93058	0.004343	0.991592	0.992323	Zlp541	ENSMUSGC 104.9706	0.090779	0.702475	0.962215	Zlp850	ENSMUSGCZcwi40	10251.96	0.116408	0.321343	0.766497	ENSMUSGCZcwi40	8721.3			



ENSMUSGC 724.5691 0.056112 0.610331 0.908189 Zfp788  
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ENSMUSGC 306.036 -0.08463 0.559003 0.888638 Zfp942  
ENSMUSGC 426.6129 0.059516 0.686893 0.935941 Zfp943  
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ENSMUSGC 157.1719 0.139618 0.492539 0.860378 Zfp971  
ENSMUSGC 132.2955 -0.32027 0.082252 0.442642 Zfp974  
ENSMUSGC 100.5103 -0.07197 0.720031 0.941986 Zfp975  
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ENSMUSGC 46.7373 -0.26424 0.440298 0.831851 Zfp982  
ENSMUSGC 289.4772 -0.00048 0.997245 0.999587 Zfp983  
ENSMUSGC 81.12788 -0.2882 0.248527 0.697423 Zfp984  
ENSMUSGC 16.73273 -0.58326 0.255126 NA Zfp991  
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ENSMUSGC 98.38904 0.069092 0.746176 0.949289 Zfp995  
ENSMUSGC 377.3263 0.0635 0.635385 0.914296 Zfp1  
ENSMUSGC 1866.077 0.298117 0.007382 0.118765 Zfpm1  
ENSMUSGC 268.6569 0.225712 0.128066 0.536614 Zfpm2  
ENSMUSGC 13404.11 0.175111 0.04689 0.333252 Zfp  
ENSMUSGC 1849.426 0.25371 0.040611 0.309163 Zfp2  
ENSMUSGC 1955.82 0.206521 0.0232 0.233586 Zfp3  
ENSMUSGC 1197.691 0.104303 0.374107 0.800445 Zfp4f1  
ENSMUSGC 3215.067 0.166779 0.036751 0.295976 Zfp4f1  
ENSMUSGC 594.5472 0.000841 0.993827 0.999369 Zfp4  
ENSMUSGC 1206.18 0.068713 0.488172 0.859092 Zfp1e1  
ENSMUSGC 590.5183 -0.05323 0.671365 0.928781 Zfp1e16  
ENSMUSGC 490.6375 0.018338 0.870952 0.977951 Zfp1e19  
ENSMUSGC 831.547 0.070035 0.489968 0.859319 Zfp1e21  
ENSMUSGC 699.5753 0.006584 0.957906 0.991874 Zfp1e26  
ENSMUSGC 2726.03 -0.20524 0.103773 0.489428 Zfp1e28  
ENSMUSGC 1426.708 -0.20793 0.045845 0.328083 Zfp1e28  
ENSMUSGC 1839.595 0.041669 0.720877 0.942684 Zfp1e9  
ENSMUSGC 968.9337 -5.52E-05 0.999794 0.99989 Zfp1e  
ENSMUSGC 173.5435 -0.23593 0.179998 0.617634 Zfp1e  
ENSMUSGC 3182.068 0.191475 0.113483 0.508017 Zfp1  
ENSMUSGC 970.4176 0.046299 0.657698 0.92425 Zfp2  
ENSMUSGC 3762.159 0.518794 1.49E-11 9.88E-09 Zfp3  
ENSMUSGC 444.4524 -0.2559 0.105665 0.452481 Zfp4  
ENSMUSGC 423.9047 0.002824 0.982325 0.997512 Zfp2  
ENSMUSGC 102.2077 0.144917 0.494294 0.860611 Zfp3  
ENSMUSGC 151.3492 -0.24566 0.167531 0.609012 Zfp4  
ENSMUSGC 107.4488 0.150406 0.541503 0.88181 Zfp5  
ENSMUSGC 167.8705 0.108475 0.516111 0.872701 Zfp1  
ENSMUSGC 112.0786 -0.08894 0.651846 0.921871 Zfp1  
ENSMUSGC 943.3398 -0.03664 0.734696 0.945584 Zfp1  
ENSMUSGC 175.9883 -0.09982 0.617311 0.910866 Zfp1  
ENSMUSGC 261.5279 -0.19894 0.180226 0.617634 Zfp1  
ENSMUSGC 744.6884 0.079508 0.442858 0.83378 Zfp1  
ENSMUSGC 1100.044 -0.58545 1.01E-08 3.91E-06 Zfp1  
ENSMUSGC 1110.401 0.069626 0.640239 0.916434 Zfp1  
ENSMUSGC 111.5637 0.572725 0.201592 0.641362 Zfp1  
ENSMUSGC 515.8721 0.122017 0.27932 0.729114 Zfp1  
ENSMUSGC 366.824 0.142209 0.314502 0.761558 Zfp1  
ENSMUSGC 153.0997 -0.10924 0.538097 0.882548 Zfp1  
ENSMUSGC 535.446 -0.05993 0.642254 0.916805 Zfp1  
ENSMUSGC 371.5393 0.116206 0.340417 0.778122 Zfp1  
ENSMUSGC 3929.096 0.140673 0.154159 0.580901 Zfp1  
ENSMUSGC 3987.185 0.18973 0.023395 0.233882 Zfp1  
ENSMUSGC 924.3546 -0.08429 0.507673 0.891932 Zfp1  
ENSMUSGC 513.6479 -0.1951 0.116854 0.515606 Zfp1  
ENSMUSGC 4799.292 0.069438 0.425949 0.824898 Zfp1  
ENSMUSGC 17491.1 0.241003 0.004051 0.081396 Zfp1  
ENSMUSGC 1602.237 0.023401 0.868555 0.978997 Zfp1  
ENSMUSGC 230.7 0.253737 0.0848 0.448764 Zfp1  
ENSMUSGC 1704.884 0.00131 0.98776 0.998907 Zfp1  
ENSMUSGC 3328.146 0.204902 0.119543 0.523344 Zfp1  
ENSMUSGC 1597.954 -0.05356 0.563326 0.889914 Zfp1  
ENSMUSGC 1003.459 -0.12118 0.202524 0.642593 Zfp1  
ENSMUSGC 819.5051 -0.47526 0.656E-06 0.000739 Zfp1  
ENSMUSGC 99.92058 0.059802 0.766385 0.954173 Zfp1  
ENSMUSGC 7828.553 0.063148 0.431261 0.827055 Zfp1  
ENSMUSGC 18.23948 0.080103 0.130853 NA Zfp1  
ENSMUSGC 672.3771 0.180603 0.160483 0.590122 Zfp1  
ENSMUSGC 4759.842 0.308332 0.005195 0.096074 Zfp1  
ENSMUSGC 2176.361 0.130015 0.155198 0.583117 Zfp1  
ENSMUSGC 256.6838 0.093671 0.512674 0.871762 Zfp1  
ENSMUSGC 1101.213 0.090417 0.928548 0.991641 Zfp1  
ENSMUSGC 913.6878 0.114191 0.33674 0.777 Zfp1  
ENSMUSGC 340.0477 0.039261 0.824421 0.967102 Zfp1  
ENSMUSGC 357.4022 0.083118 0.500553 0.863514 Zfp1  
ENSMUSGC 8400.067 0.082116 0.306139 0.753712 Zfp1  
ENSMUSGC 776.4075 0.080559 0.414876 0.820184 Zfp1  
ENSMUSGC 609.126 -0.26623 0.078979 0.434796 Zfp1  
ENSMUSGC 35.02303 -0.31094 0.3752 0.800786 Zfp1  
ENSMUSGC 905.0922 0.071797 0.5497 0.885944 Zfp1

ENSMUSGC 452.6423 -0.30618 0.033773 0.647272 Zfp1  
ENSMUSGC 4452.875 0.12201 0.258037 0.883684 Zfp1  
ENSMUSGC 1523.117 0.11936 0.342162 0.879697 Zfp1  
ENSMUSGC 1504.911 0.111883 0.484262 0.924578 Zfp1  
ENSMUSGC 203.8446 0.172625 0.292612 0.897982 Zfp1  
ENSMUSGC 1589.292 0.065119 0.556046 0.939565 Zfp1  
ENSMUSGC 2746.074 -0.0789 0.64238 0.933903 Zfp1  
ENSMUSGC 1431.081 -0.10486 0.357365 0.91373 Zfp1  
ENSMUSGC 981.545 0.084174 0.48164 0.924578 Zfp1  
ENSMUSGC 869.9873 0.005006 0.97495 0.996416 Zfp1  
ENSMUSGC 27.10567 0.234728 0.301283 0.908534 Zfp1  
ENSMUSGC 638.615 -0.01754 0.87432 0.988644 Zfp1  
ENSMUSGC 17.16934 0.692572 0.147826 0.836241 Zfp1  
ENSMUSGC 563.3454 -0.06171 0.711714 0.964363 Zfp1  
ENSMUSGC 3982.399 0.076528 0.517762 0.930939 Zfp1  
ENSMUSGC 1962.956 0.104384 0.352878 0.912263 Zfp1  
ENSMUSGC 219.8435 -0.09673 0.581546 0.944266 Zfp1  
ENSMUSGC 920.0446 -0.25514 0.046668 0.699307 Zfp1  
ENSMUSGC 801.4022 0.006472 0.956238 0.995227 Zfp1  
ENSMUSGC 291.8981 -0.13902 0.474565 0.923329 Zfp1  
ENSMUSGC 710.7684 -0.05728 0.711468 0.964363 Zfp1  
ENSMUSGC 7627.512 0.072959 0.471944 0.923329 Zfp1  
ENSMUSGC 726.7474 0.150932 0.246776 0.877904 Zfp1  
ENSMUSGC 325.0989 0.138277 0.434514 0.91869 Zfp1  
ENSMUSGC 33.26908 -0.18714 0.590399 0.944975 Zfp1  
ENSMUSGC 806.6914 0.009203 0.943666 0.994798 Zfp1  
ENSMUSGC 1544.929 0.053094 0.740165 0.968811 Zfp1  
ENSMUSGC 2222.397 0.230159 0.100541 0.801444 Zfp1  
ENSMUSGC 222.8395 -0.18643 0.307414 0.889839 Zfp1  
ENSMUSGC 832.1852 -0.00503 0.973421 0.996416 Zfp1  
ENSMUSGC 176.3099 -0.01821 0.917927 0.992529 Zfp1  
ENSMUSGC 328.5279 -0.1721 0.27426 0.889874 Zfp1  
ENSMUSGC 154.6079 -0.01272 0.946001 0.994798 Zfp1  
ENSMUSGC 168.6934 0.021634 0.90988 0.991958 Zfp1  
ENSMUSGC 395.1055 0.058156 0.725439 0.966887 Zfp1  
ENSMUSGC 206.0064 0.09934 0.597525 0.946609 Zfp1  
ENSMUSGC 246.864 0.050215 0.781673 0.976106 Zfp1  
ENSMUSGC 2055.608 0.118854 0.385176 0.917527 Zfp1  
ENSMUSGC 265.4044 0.296474 0.059906 0.7301 Zfp1  
ENSMUSGC 24.42461 0.43987 0.330998 0.907513 Zfp1  
ENSMUSGC 408.0737 0.130236 0.410019 0.917257 Zfp1  
ENSMUSGC 143.0814 -0.08801 0.674908 0.95694 Zfp1  
ENSMUSGC 583.0337 0.069412 0.906122 0.950113 Zfp1  
ENSMUSGC 343.4053 -0.10865 0.473713 0.923329 Zfp1  
ENSMUSGC 704.7601 -0.07274 0.594676 0.945444 Zfp1  
ENSMUSGC 184.7553 -0.22294 0.242353 0.871729 Zfp1  
ENSMUSGC 387.726 0.120306 0.337504 0.907972 Zfp1  
ENSMUSGC 521.0429 -0.26967 0.042082 0.690304 Zfp1  
ENSMUSGC 166.7886 0.261414 0.195904 0.861121 Zfp1  
ENSMUSGC 464.0319 0.230183 0.12234 0.913384 Zfp1  
ENSMUSGC 81.76009 0.294592 0.245623 0.877904 Zfp1  
ENSMUSGC 8721.375 -0.08219 0.551587 0.939565 Zfp1  
ENSMUSGC 173.2764 0.271163 0.180273 0.892356 Zfp1  
ENSMUSGC 466.4322 -0.05062 0.721094 0.968887 Zfp1  
ENSMUSGC 3983.705 -0.04818 0.641425 0.953903 Zfp1  
ENSMUSGC 1505.539 -0.09064 0.425672 0.917257 Zfp1  
ENSMUSGC 1785.99 0.156069 0.314563 0.900949 Zfp1  
ENSMUSGC 1839.756 0.006758 0.95019 0.994798 Zfp1



ENSMUSGC 1714.622 0.087521 0.380173 0.801757 Zranb1  
ENSMUSGC 2325.916 -0.02404 0.813288 0.964574 Zranb2  
ENSMUSGC 260.5447 0.003519 0.981989 0.997512 Zranb3  
ENSMUSGC 903.8007 -0.0292 0.796266 0.960088 Zsr2  
ENSMUSGC 187.6282 -0.10457 0.534478 0.880719 Zscan12  
ENSMUSGC 376.7986 -0.04451 0.733164 0.944956 Zscan18  
ENSMUSGC 171.6593 0.02617 0.880068 0.981469 Zscan2  
ENSMUSGC 200.6866 0.236617 0.119327 0.523036 Zscan20  
ENSMUSGC 425.6943 0.00725 0.960556 0.993991 Zscan21  
ENSMUSGC 231.6439 0.16943 0.305145 0.752998 Zscan22  
ENSMUSGC 268.8315 0.024893 0.982424 0.982244 Zscan25  
ENSMUSGC 2127.517 -0.04585 0.671205 0.928781 Zscan26  
ENSMUSGC 272.7885 0.112998 0.416288 0.82084 Zscan29  
ENSMUSGC 27.30813 0.504221 0.193886 0.633085 Zscan30  
ENSMUSGC 468.934 0.255813 0.080286 0.438167 Zswim1  
ENSMUSGC 159.9756 -0.03583 0.813289 0.964574 Zswim3  
ENSMUSGC 624.6324 -0.0023 0.985395 0.998071 Zswim4  
ENSMUSGC 388.8256 -0.01194 0.926478 0.991229 Zswim5  
ENSMUSGC 724.2264 -0.27097 0.025988 0.247245 Zswim6  
ENSMUSGC 203.6232 -0.19969 0.159595 0.635396 Zswim7  
ENSMUSGC 3793.378 0.174073 0.145744 0.566898 Zswim8  
ENSMUSGC 616.6812 -0.03772 0.735929 0.946267 Zswim9  
ENSMUSGC 157.3769 -0.1823 0.311276 0.759247 Zup1  
ENSMUSGC 499.0257 0.171343 0.199732 0.640239 Zw1D  
ENSMUSGC 82.15372 0.066081 0.783441 0.957558 Zw1ch  
ENSMUSGC 10251.96 0.116408 0.321343 0.766497 Zwint  
ENSMUSGC 173.4373 0.023231 0.917125 0.989014 Zxdb  
ENSMUSGC 519.7928 -0.01236 0.927694 0.991229 Zxdc  
ENSMUSGC 4651.11 0.128088 0.122834 0.529179 Zyg11b  
ENSMUSGC 1708.41 0.005346 0.953099 0.993874 Zyx  
ENSMUSGC 1787.866 -0.11324 0.350193 0.781943 Zze1f1  
ENSMUSGC 2023.366 0.012506 0.890815 0.983764 Zz13



## K-mean cluster

Cluster terms										Cluster Genes									
Cluster	ID	Descriptor	GeneRatio	BgRatio	pvalue	p.adjust	qvalue	geneID	Count	id	symbol	entrez	log2FoldCh	log2FoldCh	logFC	MNK	logFC	MNK	clust
1	2	GO:009874 cell-cell adl	36/531	130/8076	4.21E-14	1.47E-10	1.33E-10	Acvr1/Alca	36	2	ENSMUSG.111005SG1	66202	007348695	005661137	-25775	2005			1
2	2	GO:000741 axon guida	37/531	149/8076	7.48E-13	8.70E-10	7.89E-10	Alcam/Alp	37	40	ENSMUSG.Abcba7	27403	005299196	014060980	-494	-01525			1
3	2	GO:009746 neuron prc	37/531	149/8076	7.48E-13	8.70E-10	7.89E-10	Alcam/Alp	37	507	ENSMUSG.Arhhap39	223666	039403095	024364342	-17125	18875			1
4	2	GO:007008 glycosylati	29/531	109/8076	3.95E-11	3.44E-08	3.12E-08	Abca2/Alg1	29	521	ENSMUSG.Arhhg19	213649	005785528	00783139	-13125	0685			1
5	2	GO:000911 glycoprotei	36/531	166/8076	1.05E-10	7.33E-08	6.65E-08	Abca2/Alg1	36	549	ENSMUSG.Arll6ip4	61505	011525141	008254293	-112	0235			1
6	2	GO:000646 protein gly	26/531	95/8076	2.09E-10	1.04E-07	9.43E-08	Abca2/Alg1	26	588	ENSMUSG.Asap2	211914	030273695	01973679	-1845	02275			1
7	2	GO:004341 macromole	26/531	95/8076	2.09E-10	1.04E-07	9.43E-08	Abca2/Alg1	26	790	ENSMUSG.Blcra	243842	015478937	023741240	-10375	06775			1
8	2	GO:004646 membrane	19/531	57/8076	1.53E-09	6.68E-07	6.06E-07	Abca2/Abc	19	889	ENSMUSG.Caap1	67770	01085232	012283571	-1755	-01625			1
9	2	GO:000664 membrane	24/531	92/8076	3.03E-09	1.17E-06	1.06E-06	Abca2/Abc	24	1303	ENSMUSG.Cldn5	12741	-01487777	016136690	-11025	09625			1
10	2	GO:009866 cell-cell ad	61/531	426/8076	3.62E-09	1.26E-06	1.14E-06	Acvr1/Alca	61	1658	ENSMUSG.Cxoc1	74322	024239180	012629558	-146	1015			1
11	2	GO:003459 response t	33/531	171/8076	1.46E-08	4.63E-06	4.20E-06	Amfr/Amf	33	1686	ENSMUSG.Cys1	12879	033181442	063872788	-14775	0035			1
12	2	GO:000741 synapse as	32/531	172/8076	6.03E-08	1.75E-05	1.59E-05	Adgrl2/Adp	32	2109	ENSMUSG.Clf5	13644	-01776452	001889603	-14575	01			1
13	2	GO:000702 endoplasm	20/531	78/8076	8.71E-08	2.19E-05	1.99E-05	At12/At13/f	20	2230	ENSMUSG.Cfmsy	233545	018310382	030303507	-116	0225			1
14	2	GO:000911 glycoprotei	27/531	132/8076	8.80E-08	2.19E-05	1.99E-05	Abca2/Alg1	27	2558	ENSMUSG.Cfndc4	64339	-00089018	-01012516	-16225	009			1
15	2	GO:006156 axon devel	53/531	381/8076	1.11E-07	2.45E-05	2.22E-05	Alcam/Alp	53	3054	ENSMUSG.Hdglf2	15193	017565795	010977482	-15275	0295			1
16	2	GO:003014 sphingolip	14/531	40/8076	1.12E-07	2.45E-05	2.22E-05	Abca2/Abc	14	3258	ENSMUSG.Clghmbp2	20589	-00305280	-00182293	-1265	043			1
17	2	GO:000715 homophilic	18/531	66/8076	1.40E-07	2.75E-05	2.49E-05	Cadm4/Cdl	18	3514	ENSMUSG.Ckdm4a	230674	016530823	004801227	-13475	01875			1
18	2	GO:000666 sphingolip	19/531	73/8076	1.42E-07	2.75E-05	2.49E-05	Abca2/Abc	19	3563	ENSMUSG.Klhl20	226541	-007830044	007067091	-10775	09075			1
19	2	GO:000666 glycolipid	15/531	47/8076	1.61E-07	2.80E-05	2.54E-05	Abca2/B4g	15	3644	ENSMUSG.Cldlrp1	100017	-01064880	014051937	-13975	02925			1
20	2	GO:190356 liposacchar	15/531	47/8076	1.61E-07	2.80E-05	2.54E-05	Abca2/B4g	15	3788	ENSMUSG.Clsr	54135	022087308	041396430	-1425	124			1
21	2	GO:00074C axonogene	49/531	346/8076	1.99E-07	3.30E-05	3.00E-05	Alcam/Alp	49	3805	ENSMUSG.Lyfg6e	70274	-08682348	-00775057	-14925	01575			1
22	2	GO:000761 behavior	61/531	482/8076	3.68E-07	5.83E-05	5.29E-05	Abca2/Abh	61	3915	ENSMUSG.Mapk9	26420	005297017	-008506020	-34425	107			1
23	2	GO:000861 lipid biosyn	49/531	357/8076	5.22E-07	7.91E-05	7.18E-05	Abca2/Abc	49	239706	ENSMUSG.Mett12	239706	004222942	00334115	-21125	03625			1
24	2	GO:000931 oligosacchi	10/531	23/8076	7.28E-07	0.000106	9.60E-05	B3galnt1/F	10	4340	ENSMUSG.Myo1f	17916	-02704893	-02974298	-107	061			1
25	2	GO:00508C synapse on	57/531	449/8076	8.30E-07	0.000116	0.000105	Adam10/F	57	4358	ENSMUSG.Naa10	56292	-02115557	-01296582	-13275	131			1
26	2	GO:000761 memory	23/531	113/8076	8.78E-07	0.000118	0.000107	Adcy8/Adc	23	4687	ENSMUSG.Nsmce3	66647	-06165490	014793664	-14225	04825			1
27	2	GO:000645 protein O-1	11/531	29/8076	1.04E-06	0.000135	0.000122	B3galnt1/B	11	4718	ENSMUSG.Nucks1	98415	-00168965	-00615353	-1605	104			1
28	2	GO:009956 synaptic m	12/531	35/8076	1.19E-06	0.000148	0.000134	Cdh10/Efn	12	5133	ENSMUSG.Phf8	320595	009345513	011524618	-12425	11675			1
29	2	GO:000667 ceramide n	14/531	50/8076	2.46E-06	0.000296	0.000268	Abca2/B4g	14	5159	ENSMUSG.Plas4	59004	013406066	004318913	-2255	01575			1
30	2	GO:000924 glycolipid	10/531	26/8076	2.82E-06	0.000328	0.000298	B4galnt1/F	10	5305	ENSMUSG.Pno1	66249	004620939	-01840808	-165	00625			1
31	2	GO:003432 cell junctio	44/531	325/8076	2.97E-06	0.000334	0.000303	Ace2/Adgrl	44	5326	ENSMUSG.Poll	56626	004611334	-01475930	-3065	12175			1
32	2	GO:004866 cell morph	57/531	468/8076	3.17E-06	0.000345	0.000313	Adam10/F	57	5407	ENSMUSG.Ppp1r12c	232807	007586423	-00288614	-1075	03975			1
33	2	GO:005196 regulation	21/531	106/8076	4.14E-06	0.000433	0.000393	Adgrl2/Adp	21	5634	ENSMUSG.Ptms	69202	-00071855	-01353841	-1125	1145			1
34	2	GO:004651 ceramide b	10/531	27/8076	4.22E-06	0.000433	0.000393	B4galnt1/F	10	5754	ENSMUSG.Rab3b	69908	-08037258	-01732650	-169	-00825			1
35	2	GO:000668 glycosphing	10/531	28/8076	6.18E-06	0.000604	0.000548	Abca2/B4g	10	6008	ENSMUSG.Rlim	19820	000840927	-00387528	-17575	098			1
36	2	GO:00082C cholesterol	17/531	76/8076	6.23E-06	0.000604	0.000548	Abca2/Alp	17	6017	ENSMUSG.Rnaseh2b	67153	-00148313	009709374	-13975	0625			1
37	2	GO:003096 endoplasm	12/531	42/8076	1.03E-05	0.000972	0.000881	Amfr/Dnaj	12	6132	ENSMUSG.Rpp25	102614	-00072018	-01156132	-1965	0645			1
38	2	GO:001612 sterol met:	17/531	79/8076	1.08E-05	0.000995	0.000902	Adgrl2/Adp	17	6476	ENSMUSG.Sh2b1	20399	009278462	-00430972	-117	06975			1
39	2	GO:005196 regulation	45/531	354/8076	1.23E-05	0.0011	0.000998	Adgrl2/Bm	45	6911	ENSMUSG.Spodt1	227695	00856407	-00360303	-1785	-0045			1
40	2	GO:005085 cognition	35/531	248/8076	1.27E-05	0.001106	0.001004	Adcy3/Adc	35	7069	ENSMUSG.Stxbp2	20911	009062733	001493904	-10375	0815			1
41	2	GO:000646 signal pept	6/531	Oct-76	1.31E-05	0.001118	0.001014	H13/Sec11	6	7075	ENSMUSG.Sub1	20024	-000254876	-01722411	-1465	00525			1
42	2	GO:000696 response t	15/531	67/8076	2.16E-05	0.001795	0.001629	Amfr/Dnaj	15	20931	ENSMUSG.Sclt2	20931	-00201622	-003636037	-2655	143			1
43	2	GO:009005 presynapse	12/531	45/8076	2.23E-05	0.001813	0.001645	App/Cln3n	12	7088	ENSMUSG.Ube1d1	207740	005174785	-01227562	-148	01425			1
44	2	GO:000761 learning or	32/531	224/8076	2.34E-05	0.001852	0.001668	Adcy3/Adc	32	7813	ENSMUSG.Ube2v1	66589	00387859	-01190652	-12825	038			1
45	2	GO:005091 negative c	9/531	26/8076	2.44E-05	0.001872	0.001698	Ltrn2/Rob	9	7871	ENSMUSG.Umad1	16408	-00447575	-02436475	-101	0685			1
46	2	GO:005196 positive re	14/531	60/8076	2.47E-05	0.001872	0.001698	Adgrl2/Cst	14	7942	ENSMUSG.Usp53	99526	043684630	056117473	-11125	02575			1
47	2	GO:190265 secondary	17/531	84/8076	2.55E-05	0.001889	0.001714	Abca2/Alp	17	7948	ENSMUSG.Ust	338362	-01998171	013771219	-28875	107			1
48	2	GO:000686 amino acid	20/531	110/8076	2.66E-05	0.001932	0.001752	Ace2/Cck1f	20	8054	ENSMUSG.Vvn	76982	007552154	-007982638	-12675	01425			1
49	2	GO:006033 head devel	49/531	413/8076	3.27E-05	0.002328	0.002112	Abcb6/Alk	49	8084	ENSMUSG.Wdr25	212198	-00303776	-01679766	-1895	0595			1
50	2	GO:000742 brain devel	46/531	384/8076	4.53E-05	0.003158	0.002865	Abcb6/Alk	46	8158	ENSMUSG.Yaf2	67057	006920916	-00565472	-25725	03925			1
51	2	GO:003462 cellular res	12/531	49/8076	5.63E-05	0.003849	0.003491	Amfr/Dnaj	12	8194	ENSMUSG.Zbed3	72114	-00343786	-01758561	-2515	0437			1
52	2	GO:003656 ERAD path	16/531	81/8076	5.99E-05	0.004018	0.003645	Amfr/Canx	16	8233	ENSMUSG.Zeb2	24136	001543388	-00530480	-107	0075			1
53	2	GO:004884 axon exten	8/531	23/8076	6.72E-05	0.004263	0.003867	Bmpr2/Dsc	8	8241	ENSMUSG.Zfp219	68980	-00330352	-00850692	-14575	03575			1
54	2	GO:190226 neuron prc	8/531	23/8076	6.72E-05	0.004263	0.003867	Bmpr2/Dsc	8	8267	ENSMUSG.Zgap	229007	-0526	-05	025483912	-14325	08525		1
55	2	GO:190464 cellular res	8/531	23/8076	6.72E-05	0.004263	0.003867	Bmpr2/Alp	8	8270	ENSMUSG.Zkscan1	74570	-00366350	001119676	-155	0855			1
56	2	GO:000651 glycoprotei	7/531	18/8076	8.58E-05	0.005253	0.004766	Cstl/Edem1	7	22401	ENSMUSG.Zmat3	81879	0370305	00099846	-151	07425			1
57	2	GO:006041 ventricular	7/531	18/8076	8.58E-05	0.005253	0.004766	Acvr1/Bmp	7	8286	ENSMUSG.Zranb2	53861	-00240385	023015928	-14175	048			1
58	2	GO:005196 positive re	33/531	251/8076	9.46E-05	0.005565	0.005048	Adgrl2/Bm	33	14	ENSMUSG.Zr3434E2	99650	-01684174	014243789	01025	02075			1
59	2	GO:190464 response t	8/531	24/8076	9.51E-05	0.005565	0.005048	Abcc1/Alp	8	36	ENSMUSG.Abca2	11305	-01386696	022393465	0021	024</			



124	2	GO:003121	biomineral	12/531	68/8076	0.001414	0.03977	0.036078	Acrv1/Acrv	12	1128	ENSMUSG	Cdh11	12552	-04670174	015047519005	004	2	
125	2	GO:190585	positive reg	7/531	27/8076	0.001426	0.03978	0.036087	App/EIf2ak	7	1130	ENSMUSG	Cdh13	12554	-04328019	0290515240685	014	2	
126	2	GO:003125	retinal gan	5/531	14/8076	0.001467	0.040612	0.036842	Efna5/Ephi	5	1134	ENSMUSG	Cdh20	23836	-00960109	008489152024	01425	2	
127	2	GO:009911	regulation	8/531	35/8076	0.0016	0.043955	0.039875	App/Clntrn3	8	1166	ENSMUSG	Cds1	74596	-02075265	00689197203625	034	2	
128	2	GO:000766	sensory pe	24/531	192/8076	0.0017	0.046319	0.042019	Adcy3/Alg1	24	1167	ENSMUSG	Cds2	110911	-01104544	01562897202025	019	2	
129	2	GO:190111	carbohydr	39/531	366/8076	0.001753	0.047392	0.042993	Abca2/Adc1	39	1177	ENSMUSG	Celsr2	53883	-02854693	022046031013	01375	2	
130	2	GO:000926	response t	6/531	21/8076	0.001819	0.048803	0.044272	Ar5b/Asic1	6	1178	ENSMUSG	Cemp12	83921	-02051566	0284820330305	01275	2	
131	3	GO:000651	ubiquitin-d	116/1409	421/8076	7.84E-08	0.000348	0.000338	Agap3/Ag1	116	1193	ENSMUSG	Cers2	76893	-04337496	0257801200365	048	2	
132	3	GO:001994	modification	116/1409	428/8076	2.05E-07	0.000405	0.000394	Agap3/Ag1	116	1194	ENSMUSG	Cers4	67260	-01242778	0140928030125	03475	2	
133	3	GO:00070x	mitochond	112/1409	412/8076	2.85E-07	0.000405	0.000394	Acad9/Alf1	112	1236	ENSMUSG	Chgb	12653	-02914347	014301654011	02775	2	
134	3	GO:004363	modification	117/1409	437/8076	3.65E-07	0.000405	0.000394	Agap3/Ag1	117	1260	ENSMUSG	Chrm1	12669	-02851799	026280101-0175	026	2	
135	3	GO:004815	Golgi vesic	69/1409	230/8076	1.48E-06	0.001312	0.001274	Ankfy1/Ap	69	1296	ENSMUSG	Clnb6	26372	-02807695	00536058018	00825	2	
136	3	GO:005165	establishm	84/1409	312/8076	1.36E-05	0.008925	0.008667	5730455P1	84	1297	ENSMUSG	Clnb7	26373	-01498181	0172086301925	03725	2	
137	3	GO:005164	organelle	1108/1409	425/8076	1.41E-05	0.008925	0.008667	5730455P1	108	1301	ENSMUSG	Cldn12	64945	-04374259	024771779026	04	2	
138	3	GO:005165	establishm	49/1409	159/8076	2.22E-05	0.012317	0.011961	5730455P1	36	1319	ENSMUSG	Clnb6	76524	-03911412	00389785102725	00125	2	
139	3	GO:000683	mitochond	38/1409	116/8076	4.17E-05	0.017765	0.017251	Agk/Alp/It	38	1323	ENSMUSG	Clnb1	56457	-02375462	0066908030205	00235	2	
140	3	GO:000701	microtubul	119/1409	489/8076	4.34E-05	0.017765	0.017251	Agk/Alp/It	119	1330	ENSMUSG	Clnb3	232370	-02925228	012248911027	021	2	
141	3	GO:009902	vesicle tetr	15/1409	30/8076	4.40E-05	0.017765	0.017251	5730455P1	15	1354	ENSMUSG	Cnh1	12793	-03508768	000878253013	00525	2	
142	3	GO:000702	vacuolar tr	41/1409	130/8076	5.68E-05	0.021002	0.020395	Aktip/Ank1	41	1363	ENSMUSG	Cnmn3	94218	-02386614	00553026	024	001	2
143	3	GO:001615	endosomal	56/1409	196/8076	6.59E-05	0.022519	0.021868	Ankfy1/Ap	56	1364	ENSMUSG	Cnmn4	94220	-02372475	025399753017	02175	2	
144	3	GO:001648	cytosolic tr	44/1409	145/8076	8.62E-05	0.027329	0.026539	Aktip/Ank1	44	1375	ENSMUSG	Cnpy2	56530	-02582889	-00467625	-00075	01975	2
145	3	GO:007064	protein mo	112/1409	464/8076	0.001005	0.027607	0.026809	Aktip/Ank1	112	1377	ENSMUSG	Cnpy4	66455	-01651065	0154731230365	-009	2	
146	3	GO:000616	purine nuc	80/1409	310/8076	0.000107	0.027607	0.026809	Acaca/Alf1	80	1382	ENSMUSG	Cntrn1	12805	-03111838	0100036570155	-00325	2	
147	3	GO:005164	vesicle loca	51/1409	177/8076	0.000109	0.027607	0.026809	5730455P1	51	1385	ENSMUSG	Cntrn4	269784	-05851128	02524038601725	0175	2	
148	3	GO:004214	retrograde	26/1409	72/8076	0.000112	0.027607	0.026809	Ankfy1/Ap	26	1386	ENSMUSG	Cntrn5	244682	-01590029	015673830006	03125	2	
149	3	GO:000915	purine ribo	64/1409	237/8076	0.00013	0.03038	0.029501	Acaca/Alf1	64	1391	ENSMUSG	Cntnap4	170571	-04710575	01457508100575	0045	2	
150	3	GO:001965	ribose pho	68/1409	257/8076	0.000158	0.034466	0.03347	Acaca/Alf1	68	1393	ENSMUSG	Cntnap5b	241175	-03557061	05280531902375	03325	2	
151	3	GO:002241	cellular cor	83/1409	328/8076	0.000163	0.034466	0.03347	Abce1/Add	83	1425	ENSMUSG	Col6a3	12835	-03218421	-024994000725	026	2	
152	3	GO:003254	mitochond	36/1409	116/8076	0.000226	0.042667	0.041433	Gatb/Hars1	36	1427	ENSMUSG	Colgalt1	234407	-02079096	0231712220305	0105	2	
153	3	GO:000925	ribonucleo	66/1409	251/8076	0.000238	0.042667	0.041433	Acaca/Alf1	66	1513	ENSMUSG	Cpox	12892	-03567723	009272266-0075	01625	2	
154	3	GO:000911	nucleotide	86/1409	346/8076	0.00024	0.042667	0.041433	Acaca/Alf1	86	1523	ENSMUSG	Cpt1c	78070	-00688862	014305193025	034	2	
155	3	GO:007265	establishm	26/1409	75/8076	0.00024	0.042667	0.041433	Agk/Alp/It	26	1575	ENSMUSG	Csm1d	94109	-04115051	034818561012	01675	2	
156	3	GO:003298	protein-con	51/1409	183/8076	0.00027	0.044805	0.04351	Abce1/Add	51	1622	ENSMUSG	Ctsa	19025	-02669121	00846242702625	03975	2	
157	3	GO:007252	purine-con	82/1409	328/8076	0.000272	0.044805	0.04351	Acaca/Alf1	82	1624	ENSMUSG	Ctsb	13032	-02588978	0449121702975	04525	2	
158	3	GO:000675	nucleoside	87/1409	353/8076	0.000299	0.046222	0.044885	Acaca/Alf1	87	1625	ENSMUSG	Ctsd	13033	-01395410	01254071001875	03275	2	
159	3	GO:005508	nucleoside	95/1409	392/8076	0.000302	0.046222	0.044885	Acaca/Alf1	95	1626	ENSMUSG	Ctsf	56464	-02154076	0230536102525	03825	2	
160	3	GO:003083	regulation	32/989	103/8076	3.11E-07	0.001034	0.00099	Actr3/Add	32	1627	ENSMUSG	Ctsh	13036	-01212901	02224895900425	03175	2	
161	3	GO:005165	actin filam	15/989	30/8076	4.89E-07	0.001034	0.00099	Add1/Add	15	1631	ENSMUSG	Ctsl	13039	-02484837	019745104042	03025	2	
162	3	GO:000808	regulation	34/989	120/8076	1.48E-06	0.001284	0.00123	Actr3/Add	34	1631	ENSMUSG	Ctsz	64138	-02645835	0001434470215	00725	2	
163	3	GO:003083	regulation	34/989	120/8076	1.48E-06	0.001284	0.00123	Actr3/Add	34	13116	ENSMUSG	Cyp46a1	13116	-02721626	00940439003	007	2	
164	3	GO:003083	negative re	116/989	36/8076	1.52E-06	0.001284	0.00123	Add1/Add	116	1683	ENSMUSG	Cyp7b1	13123	-02003796	0130087710385	-0015	2	
165	3	GO:003004	actin filam	33/989	119/8076	3.53E-06	0.002487	0.002382	Add1/Add	33	13138	ENSMUSG	Cydg1	13138	-02693936	016321957-00225	014	2	
166	3	GO:003004	actin filam	18/989	47/8076	4.62E-06	0.002613	0.002502	Add1/Add	18	1377	ENSMUSG	Dcc	13176	-03227845	017621038-00075	013	2	
167	3	GO:190274	positive reg	13/989	27/8076	4.94E-06	0.002613	0.002502	Actr2/Actr1	13	1787	ENSMUSG	Ddx3x	13205	-0323690	005891203-009	01175	2	
168	3	GO:003083	regulation	17/989	44/8076	7.38E-06	0.003468	0.003321	Add1/Add	17	1805	ENSMUSG	Ddgs1	13244	-03530334	012770639-00125	02525	2	
169	3	GO:000815	actin polym	36/989	140/8076	8.60E-06	0.003631	0.003482	Actr3/Add	140	1842	ENSMUSG	Dhcr7	13360	-05053828	-00350150	03575	0235	2
170	3	GO:003083	negative re	18/989	50/8076	1.27E-05	0.004215	0.004037	Abat/Acta1	18	1850	ENSMUSG	Dhcr3	70451	-02546465	00956326802775	0325	2	
171	3	GO:190274	regulation	15/989	37/8076	1.28E-05	0.004215	0.004037	Actr2/Act1	15	1882	ENSMUSG	Dhcr1	36939	-01306457	0091323620075	-001	2	
172	3	GO:004428	small mole	49/989	218/8076	1.34E-05	0.004215	0.004037	Abat/Acta1	49	1917	ENSMUSG	Dnajb12	57008	-03561060	0112250700775	0145	2	
173	3	GO:003278	monocarb	70/989	349/8076	1.45E-05	0.004215	0.004037	Abat/Acta1	70	1924	ENSMUSG	Dnajc10	66861	-02574365	024306186031	03975	2	
174	3	GO:009040	organopho	74/989	375/8076	1.50E-05	0.004215	0.004037	Accs1/Acta1	74	1947	ENSMUSG	Dner	227325	-05030833	01192978700875	03475	2	
175	3	GO:001055	positive reg	11/989	22/8076	1.72E-05	0.004269	0.004089	Actr2/Actr1	11	1963	ENSMUSG	Dock10	210293	-01868504	015871577-0045	00625	2	
176	3	GO:005101	barbed-ent	11/989	22/8076	1.72E-05	0.004269	0.004089	Add1/Add	11	2013	ENSMUSG	Dscam	13508	-02435814	020517826-013	012	2	
177	3	GO:001055	regulation	13/989	30/8076	2.07E-05	0.004865	0.004659	Actr2/Actr1	13	2064	ENSMUSG	Ebp	13595	-03832477	0013760570155	02625	2	
178	3	GO:00070x	mitochond	24/989	83/8076	3.53E-05	0.007849	0.007517	Acad2/Apo	24	2080	ENSMUSG	Edem3	66967	-02737767	02297118802975	05225	2	
179	3	GO:001605	organic aci	37/989	156/8076	4.50E-05	0.009068	0.008685	Abat/Acta1	37	2082	ENSMUSG	Edilb3	13612	-05553130	02890960010225	-001	2	
180	3	GO:004635	carboxylic	137/989	156/8076	4.50E-05	0.009068	0.008685	Abat/Acta1	37	2083	ENSMUSG	Ednr3	13618	-0199883	00948563303225	00425	2	
181	3	GO:000701	actin filam	64/989	326/8076	6.67E-05	0.012828	0.012286	Actr2/Actr1	64	2103	ENSMUSG	Efnab5	13640	-01418753	035787476013	00925	2	
182	3	GO:001598	energy der	49/989	233/8076	8.33E-05	0.015041	0.014406	Acadm/Alf1	49	2105	ENSMUSG	Efnb2	13642	-03451066	035490846-01525	0165	2	
183	3	GO:003277	positive reg	7/989	Nov-76	8.54E-05	0.015041	0.014406	Dhfr/Kras1	7	2131	ENSMUSG	Eif2ak3	13666	-01182422	03049090601225	007	2	
184	3	GO:009758	lamellipod	21/989	72/8076	9.35E-05	0.015045	0.014409	Actr2/Actr1	21	22972	ENSMUSG	Elapor1	22972	-02176498	01168738			



250	7	GO:000037	RNA splicin	43/916	221/8076	0.000245	0.025188	0.024576	Actin1/Aqr/	43	2917	ENSMUSG	Grid2	14804	-01549669	016040221033	00725	2
251	7	GO:000037	RNA splicin	43/916	221/8076	0.000245	0.025188	0.024576	Actin1/Aqr/	43	2922	ENSMUSG	Grim1	14810	-03065035	01588465503875	-0015	2
252	7	GO:000035	mRNA splic	43/916	221/8076	0.000245	0.025188	0.024576	Actin1/Aqr/	43	2938	ENSMUSG	Grim7	1080703	-04775824	003025568-001	0055	2
253	7	GO:000652	amino acid	37/916	182/8076	0.000267	0.026784	0.026134	Aasdhpt/	37	2939	ENSMUSG	Grim8	14823	-05664657	0180715660005	003	2
254	7	GO:190166	alpha-amin	15/916	50/8076	0.000287	0.02819	0.027506	Aass/Aadhf/	15	2941	ENSMUSG	Grp	225642	-01136808	00986915039	021	2
255	7	GO:000646	RNA export	18/916	67/8076	0.000342	0.032748	0.031954	Akap8/Chl	18	3004	ENSMUSG	H13	14950	-05212543	00689003304025	-00325	2
256	7	GO:004422	small mole	42/916	218/8076	0.000358	0.033529	0.032715	Aasdhpt/	42	3012	ENSMUSG	H6pd	100198	-03406365	02611149601575	01725	2
257	7	GO:000011	rRNA mod	8/916	18/8076	0.000409	0.037471	0.036562	Emg1/Ftsj3	8	3027	ENSMUSG	Hapln4a	330790	-03404151	0011094350025	00825	2
258	7	GO:001967	NAD metal	10/916	27/8076	0.000462	0.041422	0.040416	Gpd1/Gpd/	10	3081	ENSMUSG	Herpud1	64209	-02711444	0045337732-0175	0225	2
259	7	GO:007252	purine-con	35/916	174/8076	0.000476	0.041758	0.040744	Adsl/Ampd	35	3149	ENSMUSG	Hook1	77963	-00591522	0275832840375	03175	2
260	7	GO:005065	nucleic acid	25/916	111/8076	0.000538	0.044323	0.043248	Akap8/Pct	25	3174	ENSMUSG	Hsd17b7	15490	-0261943	0004076001725	01475	2
261	7	GO:005065	RNA transp	25/916	111/8076	0.000538	0.044323	0.043248	Akap8/Pct	25	3202	ENSMUSG	Htr1a	15550	-01581124	02822023602375	035	2
262	7	GO:005122	establishm	25/916	111/8076	0.000538	0.044323	0.043248	Akap8/Pct	25	3205	ENSMUSG	Htr2a	15558	-05583869	039238803-0205	03875	2
263	7	GO:001607	mRNA met	80/916	496/8076	0.000577	0.046597	0.045466	Actin1/Ago	80	3206	ENSMUSG	Htr5a	15563	-03494176	02770225602475	-00225	2
264	7	GO:000925	ribonucleo	46/916	251/8076	0.000611	0.048415	0.04724	Adsl/Ampd	46	3213	ENSMUSG	Htr5a	12282	-02088546	02461428503075	-0015	2
265	8	GO:004564	positive reg	Nov-46	451/8076	3.28E-05	0.031501	0.029777	Arid4b/Ccr	11	3221	ENSMUSG	Icam2	15068	-02873518	022025378-00925	028	2
266	8	GO:000011	negative re	Sep-46	329/8076	8.04E-05	0.038609	0.036497	Arid4b/Epc	9	3234	ENSMUSG	Irfng1	15979	-02940663	038923506-01075	01075	2
267	9	GO:000317	heart valve	8/268	22/8076	2.83E-07	0.000874	0.000836	Emilin1/Nh	8	3264	ENSMUSG	Igfbp3	78908	-02808939	030979344023	03725	2
268	9	GO:000317	heart valve	8/268	25/8076	8.77E-07	0.001356	0.001297	Emilin1/Nh	8	3265	ENSMUSG	Igfbp3	140559	-03854321	014322396-00975	01575	2
269	9	GO:190267	negative re	32/268	446/8076	2.76E-05	0.028418	0.027175	Arid1a/Atf	32	3274	ENSMUSG	Il1rap	16180	-04656545	0386955810045	00925	2
270	9	GO:004585	negative re	31/268	444/8076	6.24E-05	0.048249	0.046138	Arid1a/Atf	31	3276	ENSMUSG	Il1rap2	60367	-01018920	0734368450405	01525	2
271	10	GO:000212	cytoplasm	49/521	122/8076	2.48E-27	9.09E-24	9.09E-24	Dhx36/Eif2	49	3301	ENSMUSG	Ilpp4b	234515	-02286677	023336727-00575	00825	2
272	10	GO:014023	translation	29/521	46/8076	8.91E-24	1.63E-20	1.63E-20	Rpl10/Rpl1	29	3347	ENSMUSG	Ir12bp2	270110	-02211219	-0006842403525	0345	2
273	10	GO:014024	translation	29/521	47/8076	2.19E-23	2.00E-20	2.00E-20	Rpl10/Rpl1	29	3357	ENSMUSG	Isg15	1E+08	-04639344	0035453806375	009	2
274	10	GO:014024	translation	29/521	47/8076	2.19E-23	2.00E-20	2.00E-20	Rpl10/Rpl1	29	3359	ENSMUSG	Isg1r	320563	-01686905	02809931601725	01425	2
275	10	GO:004225	ribosome t	35/521	228/8076	1.19E-06	0.000869	0.000869	dxs28/Ddx	35	3367	ENSMUSG	Itfg1	71927	-03829163	01502741604575	023	2
276	10	GO:003444	lipid oxidat	17/521	77/8076	5.83E-06	0.003347	0.003347	Abcd2/At	17	3370	ENSMUSG	Itga3	16400	-03707203	02069505401175	047	2
277	10	GO:004221	ribosomal	17/521	78/8076	7.02E-06	0.003347	0.003347	Gt2f25/Krr	17	3371	ENSMUSG	Itga3	16401	-04483752	0154029802975	0155	2
278	10	GO:000663	fatty acid n	33/521	226/8076	7.32E-06	0.003347	0.003347	Abcd2/Abh	33	3373	ENSMUSG	Itga6	16403	-01463507	016626151-0105	02375	2
279	10	GO:001935	fatty acid o	16/521	75/8076	1.74E-05	0.00707	0.00707	Abcd2/At	16	3408	ENSMUSG	Kcna6	16494	-02811702	0200554710185	00675	2
280	10	GO:002261	ribonucleo	40/521	327/8076	5.95E-05	0.021747	0.021747	Adar/Ddx2	40	3458	ENSMUSG	Kcnd1	16506	-02012180	01351412201575	016	2
281	10	GO:000636	rRNA proc	23/521	153/8076	0.000114	0.037854	0.037854	Ddx4/Dic	23	3479	ENSMUSG	Kcnj9	16524	-01233072	020151304-00175	0115	2
282	11	GO:003421	monoatom	96/519	486/8076	8.70E-25	3.15E-21	2.66E-21	Amigo1/Ar	96	3517	ENSMUSG	Kdshr	70750	-02058212	02357133704825	0095	2
283	11	GO:009866	inorganic i	90/519	455/8076	2.97E-23	5.37E-20	4.54E-20	Amigo1/Ar	90	3547	ENSMUSG	Kirrel3	67703	-04036979	020713814-00375	02275	2
284	11	GO:00300C	metal ion t	92/519	486/8076	2.40E-22	2.89E-19	2.45E-19	Amigo1/Ar	92	3548	ENSMUSG	Kit	16590	-03708074	020273260145	-003	2
285	11	GO:009865	monoatom	81/519	427/8076	1.00E-19	9.09E-17	7.68E-17	Amigo1/Ar	81	3595	ENSMUSG	L1cam	16728	-025929871	004299524007	026	2
286	11	GO:009866	inorganic c	80/519	423/8076	2.12E-19	1.54E-16	1.30E-16	Amigo1/Ar	80	3602	ENSMUSG	Lama4	16775	-03457016	003287907-00625	01425	2
287	11	GO:00718C	potassium	40/519	133/8076	2.88E-17	1.74E-14	1.47E-14	Amigo1/Ar	40	3606	ENSMUSG	Lamc1	226519	-01820948	03173656901475	0055	2
288	11	GO:000681	potassium	42/519	152/8076	1.39E-16	7.18E-14	6.06E-14	Amigo1/Ar	42	3607	ENSMUSG	Lamp1	16783	-00904757	0089703901025	0215	2
289	11	GO:000761	behavior	80/519	482/8076	6.65E-16	3.01E-13	2.54E-13	Adam22/At	80	3608	ENSMUSG	Lamp2	16784	-01967280	020365312046	001	2
290	11	GO:00432C	regulation	65/519	350/8076	1.92E-15	7.73E-13	6.54E-13	Amigo1/Ar	65	3619	ENSMUSG	Laptn4a	17775	-02154532	-0009317202375	0375	2
291	11	GO:00347C	regulation	55/519	284/8076	5.51E-14	1.99E-11	1.68E-11	Amigo1/Ar	55	3632	ENSMUSG	Lbhd2	380787	-06274024	00227383301175	009	2
292	11	GO:00347C	regulation	65/519	375/8076	6.07E-14	2.00E-11	1.69E-11	Acs1l/Acsd1	65	3661	ENSMUSG	Lgmn	19141	-03488473	01916672801125	04075	2
293	11	GO:000741	synapse as	41/519	172/8076	8.33E-14	2.51E-11	2.12E-11	Ache/Adgrf	41	3667	ENSMUSG	Lifr	16880	-00952601	033024402011	0145	2
294	11	GO:005508	monoatom	58/519	320/8076	2.18E-13	6.07E-11	5.13E-11	Ank3/Atpl	58	3680	ENSMUSG	Lingo1	235402	-01229015	02731807101475	0075	2
295	11	GO:00508C	monoatom	58/519	320/8076	4.35E-13	1.12E-10	9.51E-11	Ank3/Atpl	58	3683	ENSMUSG	Lipa	16889	-03533948	020928587049	03325	2
296	11	GO:00015C	action post	30/519	102/8076	5.82E-13	1.40E-10	1.19E-10	Ank3/Atp2	30	3689	ENSMUSG	Lman1	70361	-03264822	010397784802375	03025	2
297	11	GO:00343C	cell junctio	57/519	325/8076	1.50E-12	3.37E-10	2.85E-10	Ache/Actn1	57	3693	ENSMUSG	Lmbrd1	68421	-01747550	01249681804225	05235	2
298	11	GO:009877	inorganic i	52/519	280/8076	1.58E-12	3.37E-10	2.85E-10	Ank3/Atpl	52	3697	ENSMUSG	Lmf2	105847	-02460047	0120093764675	-005	2
299	11	GO:00508C	synapse on	69/519	449/8076	3.90E-12	7.70E-10	6.50E-10	Ache/Adgrf	69	3698	ENSMUSG	Lmfn	239833	-01662354	02080247301575	043	2
300	11	GO:004235	regulation	55/519	314/8076	4.04E-12	7.70E-10	6.50E-10	Ank3/Atpl	55	3705	ENSMUSG	Lmtk3	381983	-0116221	02441819500225	017	2
301	11	GO:00508C	modulation	69/519	450/8076	4.34E-12	7.85E-10	6.63E-10	Atp2a2/At	69	3706	ENSMUSG	Lmnp	240028	-02416721	0174569240075	0175	2
302	11	GO:009917	regulation	69/519	451/8076	4.82E-12	8.32E-10	7.03E-10	Atp2a2/At	69	3707	ENSMUSG	Lnpk	69605	-06083177	0253747801475	0065	2
303	11	GO:00300C	intracellular	51/519	284/8076	9.90E-12	1.63E-09	1.38E-09	Atpl2a/Atp1	51	3713	ENSMUSG	Lpcat2	270084	-03679910	00656339301425	03275	2
304	11	GO:009865	inorganic c	22/519	62/8076	1.18E-11	1.77E-09	1.50E-09	Atpl1a/Atp1	22	3714	ENSMUSG	Lpcat3	14792	-02548623	0094909102875	01375	2
305	11	GO:009958	inorganic i	22/519	62/8076	1.18E-11	1.77E-09	1.50E-09	Atpl1a/Atp1	22	3716	ENSMUSG	Lpgat1	226856	-01689262	015635252032	005	2
306	11	GO:003524	synaptic tr	28/519	100/8076	1.32E-11	1.91E-09	1.61E-09	Cacna1/C	28	3724	ENSMUSG	Lrch2	210297	-01289558	00371099	014	2
307	11	GO:000681	intracellular	51/519	288/8076	1.70E-11	2.37E-09	2.01E-09	Atpl2a/Atp1	51	3729	ENSMUSG	Lrnf4	225875	-01739385	012656345011	024	2
308	11	GO:190185	positive reg	27/519	95/8076	2.10E-11	2.81E-09	2.38E-09	Adgrb3/An	27	3730	ENSMUSG	Lrnf5	238205	-02618993	019184461029	00025	2
309	11	GO:009873	import acro	30/519	117/8076	2.80E-11	3.62E-09	3.06E-09	Acs1l/Acsd1	30	3734	ENSMUSG	Lrp11	237253	-03491062	01177585601875	049	2
310	11	GO:001922	transmissi	21/519	60/8076	4.71E-11	5.68E-09	4.80E-09	Ank3/Cacn	21	3735	ENSMUSG	Lrp1b	94217	-04924846	028308545008	02875	



376	11	GO:00076 sensory pe	30/519	192/8076	4.47E-06	0.00017	0.000144	Atp2b2/At	30	4960	ENSMUSG	Pcdhgb2	93700	-04190014	-00195525	01925	01175	2	
377	11	GO:007124 cellular res	21/519	109/8076	4.60E-06	0.000173	0.000146	Ank3/Atp	21	4964	ENSMUSG	Pcdhgc5	93708	-03768493	006197848	-00575	006	2	
378	11	GO:014011 export	accr 12/519	40/8076	4.64E-06	0.000173	0.000146	Abca1/Atp	12	4982	ENSMUSG	Pcsk1	18548	-06909070	0334376080305	04325	2		
379	11	GO:009865 postsynapt	11/519	34/8076	5.12E-06	0.000189	0.00016	C1qf3/Lrln:	11	4984	ENSMUSG	Pcsk2	18549	-04403430	01676918203075	001	2		
380	11	GO:007124 cellular res	22/519	120/8076	6.39E-06	0.000234	0.000198	Ank3/Atp	22	5026	ENSMUSG	Pdia3	14827	-02498679	007142740365	785046e-1	2		
381	11	GO:005507 potassium	8/519	18/8076	6.79E-06	0.000246	0.000208	Atp1a1/At	8	5027	ENSMUSG	Pdia4	12304	-01188216	04594132602525	00525	2		
382	11	GO:000741 axon guida	25/519	149/8076	7.89E-06	0.00028	0.000237	Ank3/Cdh4	25	5029	ENSMUSG	Pdia6	71853	-01133220	025755230032	02525	2		
383	11	GO:009748 neuron prc	25/519	149/8076	7.89E-06	0.00028	0.000237	Ank3/Cdh4	25	5048	ENSMUSG	Pdyn	18610	-07891590	0092421480215	0395	2		
384	11	GO:004405 regulation	42/519	325/8076	9.24E-06	0.000325	0.000274	Atp1a1/At	42	5052	ENSMUSG	Pcdz8	107368	-03219425	01843388200225	0125	2		
385	11	GO:000695 muscle con	26/519	160/8076	9.47E-06	0.000329	0.000278	Atp1a1/At	26	5058	ENSMUSG	Peds1	407243	-03569576	0079722370625	043	2		
386	11	GO:00971C postsynapt	9/519	24/8076	9.54E-06	0.000329	0.000278	C1qf3/Lrln:	9	5072	ENSMUSG	Pex14	56273	-02392949	0040413310095	01825	2		
387	11	GO:009045 mesenchy	10/519	30/8076	1.03E-05	0.000347	0.000294	Cdh2/Erbb	10	5097	ENSMUSG	Pgap1	241062	-03889423	03537164700505	00975	2		
388	11	GO:190406 regulation	31/519	210/8076	1.03E-05	0.000347	0.000294	Amigo1/Ar	31	5112	ENSMUSG	Pgrmc1	53328	-03736779	02296413020025	-00075	2		
389	11	GO:002161 nerve deve	13/519	50/8076	1.08E-05	0.00036	0.000305	Chrm2/Edc	13	5128	ENSMUSG	Phf201	239510	-01140038	0069565750115	02825	2		
390	11	GO:003241 positive re	17/519	81/8076	1.14E-05	0.000376	0.000318	Amigo1/Ar	17	5165	ENSMUSG	Pgk	329777	-03355381	009612720004	0165	2		
391	11	GO:00300C intracellu	6/519	Oct-76	1.15E-05	0.000376	0.000318	Atp1a1/At	6	5169	ENSMUSG	Pgts	276846	-01901430	014490280038	-01025	2		
392	11	GO:005192 positive re	16/519	73/8076	1.15E-05	0.000376	0.000318	Atp1a1/At	16	5170	ENSMUSG	Pgk	78928	-02796708	0126259604675	-008	2		
393	11	GO:009906 postsynaps	12/519	44/8076	1.38E-05	0.000443	0.000374	C1qf3/Cdh:	12	5220	ENSMUSG	Plat	18791	-03896246	-009530703375	03475	2		
394	11	GO:006007 regulation	19/519	99/8076	1.38E-05	0.000443	0.000374	Chrna4/Cn	19	5237	ENSMUSG	Pld3	18807	-02084983	0050589220275	012	2		
395	11	GO:005091 negative	c9/519	26/8076	2.03E-05	0.000645	0.000545	Ilgav/Nrp2	9	5258	ENSMUSG	Pliod1	18822	-03929467	021170092025	0075	2		
396	11	GO:001972 calcium-m	18/519	94/8076	2.40E-05	0.000755	0.000638	Atp1b1/At	18	5266	ENSMUSG	Pliopp6	74411	-03980799	00275090604425	0055	2		
397	11	GO:001003 response	t28/519	189/8076	2.58E-05	0.000804	0.000679	Ank3/Atp	28	5269	ENSMUSG	Pliopp2	235044	-01822733	0129696470165	03725	2		
398	11	GO:003241 positive re	17/519	86/8076	2.62E-05	0.00081	0.000684	Amigo1/Ar	17	5271	ENSMUSG	Pliopp4	229791	-05156676	04272083900775	04975	2		
399	11	GO:003051 negative	re 7/519	16/8076	2.99E-05	0.000916	0.000774	Cav1/Htra1	16	5289	ENSMUSG	Pm20d1	212933	-02802766	-0234016502525	04375	2		
400	11	GO:009954 chemical s	17/519	88/8076	3.57E-05	0.001087	0.000919	Chrna4/Cn	17	5299	ENSMUSG	Pmkl	56695	-01038330	-00191146	01925	02025	2	
401	11	GO:001003 response	t37/519	288/8076	3.63E-05	0.001095	0.000925	Ank3/Atp	37	5348	ENSMUSG	Pomgnt2	215494	-02544895	02706632800775	-0115	2		
402	11	GO:005155 response	t18/519	98/8076	4.30E-05	0.001288	0.001088	Cav1/Chrb	18	5349	ENSMUSG	Pomk	74653	-02509225	01348436804075	01075	2		
403	11	GO:005507 sodium ion	7/519	17/8076	4.80E-05	0.001424	0.001203	Atp1a1/At	7	5355	ENSMUSG	Por	18984	-03519691	0317552900975	01375	2		
404	11	GO:001573 organic ani	29/519	209/8076	6.39E-05	0.00188	0.001588	Acsl1/Acsd	29	5376	ENSMUSG	Ppib	19035	-02000858	01014461604	-0015	2		
405	11	GO:003031 muscle sys	30/519	220/8076	6.65E-05	0.001941	0.001664	Atp1a1/At	30	5459	ENSMUSG	Praf2	54637	-04592629	-00832249027	04275	2		
406	11	GO:009716 ammoniur	7/519	18/8076	7.42E-05	0.002149	0.001816	Ache/Atp2	7	5462	ENSMUSG	Prpc	72461	-03648474	-0036713701525	01375	2		
407	11	GO:009963 protein loc	10/519	37/8076	7.90E-05	0.002233	0.001887	Adam2/Gr	10	5499	ENSMUSG	Prkcsk	19089	-02515417	02154871900825	007	2		
408	11	GO:009964 neurotrans	10/519	37/8076	7.90E-05	0.002233	0.001887	Adam2/Gr	10	5525	ENSMUSG	Prp39	328110	-01016521	03081957602675	-002	2		
409	11	GO:003558 calcium-me	6/519	13/8076	7.96E-05	0.002233	0.001887	Bcap31/Cr	6	5542	ENSMUSG	Prp7	432763	-01839690	01100563801375	0005	2		
410	11	GO:190228 semaphori	6/519	13/8076	7.96E-05	0.002233	0.001887	Ece1/Nrp1	6	5559	ENSMUSG	Psen1	19164	-02708955	019472863-01225	0335	2		
411	11	GO:200125 regulation	16/519	85/8076	8.38E-05	0.002334	0.001972	Amigo1/Ar	16	5628	ENSMUSG	Ptgs1	19224	-01576708	01637166101375	0305	2		
412	11	GO:009028 negative	re 10/519	38/8076	0.000101	0.002794	0.002361	Atp2b4/Ca	10	5629	ENSMUSG	Ptgs2	19225	-04418460	0284648706675	00675	2		
413	11	GO:004816 regulation	28/519	204/8076	0.000103	0.002835	0.002395	Atp2b2/Fgi	28	5656	ENSMUSG	Ptpd	19266	-03175302	019666133-00525	007	2		
414	11	GO:009755 calcium ion	17/519	96/8076	0.000112	0.003059	0.002585	Cacna1a/C	17	5657	ENSMUSG	Ptpre	19267	-03483160	017890890215	00975	2		
415	11	GO:005077 regulation	22/519	144/8076	0.000118	0.003201	0.002705	Ache/Amig	22	5660	ENSMUSG	Ptpk	19272	-01478954	0180798702325	02075	2		
416	11	GO:001405 regulation	9/519	32/8076	0.000129	0.003402	0.002875	Chrna4/Ch	9	5665	ENSMUSG	Ptprr	19279	-05213080	016751610014	0085	2		
417	11	GO:00860C membrane	9/519	32/8076	0.000129	0.003402	0.002875	Atp1a1/At	9	5706	ENSMUSG	Qars1	97541	-01167481	0056566740135	007	2		
418	11	GO:006056 developme	27/519	196/8076	0.000129	0.003402	0.002875	Bcan/Cadn	27	5710	ENSMUSG	Qcplrt	67369	-04294572	01003195101425	-00075	2		
419	11	GO:005045 regulation	11/519	47/8076	0.000145	0.003792	0.003204	Cacna1a/C	11	5713	ENSMUSG	Qsow1	104009	-02002382	028194457015	03425	2		
420	11	GO:004311 receptor c	13/519	63/8076	0.000147	0.003792	0.003204	Cacna1a/C	13	5714	ENSMUSG	Qsow2	227638	-03159537	01645316403725	0135	2		
421	11	GO:190137 regulation	13/519	63/8076	0.000147	0.003792	0.003204	Amigo1/Ar	13	5752	ENSMUSG	Rab39b	67790	-0073642-	-00361391-00275	00775	2		
422	11	GO:003541 protein loc	16/519	89/8076	0.000148	0.0038	0.003211	Adam2/Gr	16	5871	ENSMUSG	Rbm15	229700	-02848755	0154278330275	-0045	2		
423	11	GO:005195 synaptic tr	12/519	55/8076	0.00015	0.003827	0.003234	Cckbr/Cln	12	5906	ENSMUSG	Rcn1	19672	-02041000	0156241060395	-01225	2		
424	11	GO:000202 regulation	7/519	20/8076	0.000161	0.004086	0.003453	Atp1a1/At	7	5912	ENSMUSG	Rdh14	105014	-02478608	010280024-0025	0105	2		
425	11	GO:003051 regulation	9/519	33/8076	0.000167	0.0042	0.003549	Cav1/Elapc	9	5915	ENSMUSG	Reep1	52250	-04066416	006889250-0035	02425	2		
426	11	GO:190352 regulation	20/519	128/8076	0.000175	0.004379	0.003701	Atp1a1/At	20	5916	ENSMUSG	Reep2	225362	-02970565	000056740-005	03125	2		
427	11	GO:002306 signal rel	ae14/519	358/8076	0.000193	0.004786	0.004044	Abca1/Abc	41	5919	ENSMUSG	Reep6	70335	-01576416	004768297018	0065	2		
428	11	GO:005511 regulation	10/519	41/8076	0.000201	0.004892	0.004133	Atp1a1/At	10	5923	ENSMUSG	Rel1	100532	-04010287	0206449430345	03275	2		
429	11	GO:190101 regulation	10/519	41/8076	0.000201	0.004892	0.004133	Amigo1/Ar	10	5925	ENSMUSG	Reln	19699	-03824912	021719225-392523e-10115	0015	2		
430	11	GO:200125 positive	re 10/519	41/8076	0.000201	0.004892	0.004133	Amigo1/Ar	10	5931	ENSMUSG	Retreg1	66270	-05911356	0208953300145	-002	2		
431	11	GO:000682 copper ion	5/519	Oct-76	0.000207	0.004914	0.004153	Atp7A/Cp/I	5	5932	ENSMUSG	Retreg2	227298	-01938769	01243161302825	01125	2		
432	11	GO:001096 magnesium	5/519	Oct-76	0.000207	0.004914	0.004153	Ank3/Cnnl	5	5938	ENSMUSG	Rfc3	69263	-02455736	-003916370025	03225	2		
433	11	GO:003633 sodium ion	5/519	Oct-76	0.000207	0.004914	0.004153	Atp1a1/At	5	5952	ENSMUSG	Rgmb	68799	-04009012	011848023-0075	03325	2		
434	11	GO:190101 positive	re 6/519	15/8076	0.000208	0.004914	0.004153	Amigo1/At	6	5967	ENSMUSG	Rhbdd2	215160	-01669640	001775951011	008	2		
435	11	GO:000695 smooth m	12/519	57/8076	0.000215	0.00503	0.00425	Atp2b1/At	12	6033	ENSMUSG	Rnf130	59044	-02581942	01313938051	00825	2		
436	11	GO:009881 modulator	11/519	49/8076	0.000216	0.00503	0.00425	Chrna4/Gri	11	6058	ENSMUSG	Rnf2	269695	-02029433	008060307032	024	2		
437	11	GO:001993 second-me	22/519	150/8076	0.000217	0.00503	0.00425	Atp1b1/At	22	606									



502	11	GO:009911 postsynaps 26/5/19	211/8076	0.000983	0.016106	0.01361	C1ql3/Cacr	26	6890	ENSMUSGcSpes1	69019	-03734115	0025128100405	-012	2
503	11	GO:000834 adult locon 13/5/19	76/8076	0.000993	0.016115	0.013617	Adam22/A	13	6891	ENSMUSGcSpes2	66624	-02729829	0026806050295	-0025	2
504	11	GO:006004 cardiac mu 13/5/19	76/8076	0.000993	0.016115	0.013617	Atp1a1/Atq	13	6892	ENSMUSGcSpes3	76687	-01995445	0229325630215	01	2
505	11	GO:000836 regulation 21/5/19	157/8076	0.001044	0.016872	0.014257	Atp2b2/Atq	21	6910	ENSMUSGcSpont1	233744	-03465120	0176053480419	01925	2
506	11	GO:001046 regulation 14/5/19	86/8076	0.001066	0.017154	0.014495	Aplp2/Cacr	14	6912	ENSMUSGcSppl2a	66552	-02111252	0193682858-007	03175	2
507	11	GO:001923 sensory pe 10/5/19	50/8076	0.001094	0.017524	0.014808	Cacna1c/C	10	6929	ENSMUSGcSpntc2	20773	-03489094	0123828093-003	02225	2
508	11	GO:000801 regulation 15/5/19	96/8076	0.001107	0.017578	0.014856	Atp1a1/Atq	15	6937	ENSMUSGcSrd5a3	57357	-02791411	012808370265	01575	2
509	11	GO:006025 long-term :15/5/19	96/8076	0.001107	0.017578	0.014856	Grin2a/Gri	15	6952	ENSMUSGcSrptra	67398	-02465236	01739965002575	0295	2
510	11	GO:190241 protein loc 17/5/19	116/8076	0.001114	0.017618	0.014887	Adam22/C	17	6977	ENSMUSGcSsh1	231637	-05114143	-003926500185	0125	2
511	11	GO:200046 positive reg 8/5/19	34/8076	0.001128	0.017754	0.015003	Grin2a/Gri	8	6983	ENSMUSGcSsr3	67437	-02442818	0117348180445	-00025	2
512	11	GO:00717C membrane 9/5/19	42/8076	0.00115	0.018027	0.015233	Ank3/Ankl	9	6991	ENSMUSGcSt3gal5	20454	-03161327	01257828500575	02825	2
513	11	GO:004884 regulation 6/5/19	20/8076	0.00122	0.019037	0.016086	Nrp1/Pkxm	6	6992	ENSMUSGcSt6galnac5	26938	-02554115	000297032-0015	00575	2
514	11	GO:003134 negative re 21/5/19	159/8076	0.00123	0.019111	0.016149	B2m/Pcne	21	6994	ENSMUSGcSt8sia3	20451	-06171249	00887551019	00675	2
515	11	GO:003064 regulation 10/5/19	51/8076	0.001284	0.019869	0.01679	Atp6a1/Atq	10	7019	ENSMUSGcStim1	20866	-03521888	01228165700175	00775	2
516	11	GO:003222 positive reg 5/5/19	14/8076	0.001323	0.02022	0.017086	Ccbr/Erbb	5	7021	ENSMUSGcStimg1	72512	-03363371	0203493270035	00675	2
517	11	GO:009515 regulation 5/5/19	14/8076	0.001323	0.02022	0.017086	Lfrn1/Lrrc4	5	7037	ENSMUSGcStim3	20262	-02737588	-01951955-017	0105	2
518	11	GO:00072C positive reg 12/5/19	69/8076	0.001325	0.02022	0.017086	Adcy5/Bcm	12	7054	ENSMUSGcStk3b	68292	-02189015	0197809002775	-0035	2
519	11	GO:006223 protein loc 11/5/19	60/8076	0.001335	0.02022	0.017086	Adam22/C	11	7099	ENSMUSGcSurf1a	20932	-02717717	013373421035	-004	2
520	11	GO:190353 protein loc 11/5/19	60/8076	0.001335	0.02022	0.017086	Adam22/C	11	7109	ENSMUSGcSvop	68666	-01858713	020386210-0085	01625	2
521	11	GO:003233 positive reg 9/5/19	43/8076	0.001374	0.020634	0.017436	Abca1/Abc	9	7125	ENSMUSGcSyng1	20972	-01946042	018753410185	02025	2
522	11	GO:004886 stem cell d 9/5/19	43/8076	0.001374	0.020634	0.017436	Cdh2/Erbb	9	7126	ENSMUSGcSyng2	20973	-02477635	025643338-00525	02625	2
523	11	GO:005192 regulation 20/5/19	150/8076	0.001418	0.021212	0.017925	Atp1b1/Atq	20	7127	ENSMUSGcSyng3	20974	-04509859	001975508-01175	0345	2
524	11	GO:007265 protein loc 48/5/19	484/8076	0.001542	0.022969	0.019409	Adam22/A	48	7137	ENSMUSGcSypl1	19027	-04557739	0218199560015	029	2
525	11	GO:000191 regulation 6/5/19	21/8076	0.001617	0.023983	0.020266	Ache/Ecel	6	7148	ENSMUSGcSytr4	20983	-05318285	02590136500275	00975	2
526	11	GO:00309C forebrain d 27/5/19	230/8076	0.001645	0.024301	0.020535	Adgrg1/Atq	27	7149	ENSMUSGcSytr5	53420	-0353164	00472528500975	-0005	2
527	11	GO:000686 amino acid 16/5/19	110/8076	0.001674	0.024631	0.020813	Cacna1a/G	16	7196	ENSMUSGcTapt1	231225	-02090142	025024883015	01275	2
528	11	GO:001584 monoamin 12/5/19	71/8076	0.001712	0.025086	0.021198	Chrnac/Cac	12	7203	ENSMUSGcTasor2	105203	-00790489	0198843960325	016	2
529	11	GO:190595 positive reg 10/5/19	53/8076	0.001746	0.025485	0.021535	Abca1/Abc	10	7219	ENSMUSGcTbcd23	67581	-02730347	01452796502375	0345	2
530	11	GO:006004 heart contr 17/5/19	121/8076	0.001788	0.025997	0.021967	Atp1a1/Atq	17	7242	ENSMUSGcTb12	27368	-01035133	024432081035	0145	2
531	11	GO:006033 head devel 42/5/19	413/8076	0.001876	0.027131	0.022926	Adgrg1/Aur	42	7258	ENSMUSGcTcn2	21452	-01338615	01875544101575	00075	2
532	11	GO:004884 negative re 5/5/19	15/8076	0.001881	0.027131	0.022926	Nrp1/Semi	5	7279	ENSMUSGcTenn2	23964	-01806572	03346870802025	-006	2
533	11	GO:006007 synapse m 7/5/19	29/8076	0.001959	0.028146	0.023784	Adgrb3/Abc	7	7280	ENSMUSGcTenn3	23965	-01775017	020574955012	-00125	2
534	11	GO:190165 cellular res 41/5/19	403/8076	0.002102	0.029983	0.025336	Ache/Adcy	41	7286	ENSMUSGcTes	21753	-02335090	02085649504425	03975	2
535	11	GO:008601 membrane 6/5/19	22/8076	0.002104	0.029983	0.025336	Ank3/Cacn	6	7291	ENSMUSGcTex264	21767	-01960089	00981322401725	0005	2
536	11	GO:005125 protein cor 20/5/19	155/8076	0.002117	0.030052	0.025395	Anl1/B2m/yl	20	7302	ENSMUSGcTgfb1	21810	-02149966	014845981-00125	02925	2
537	11	GO:000685 receptor-m 22/5/19	178/8076	0.002265	0.032029	0.027065	Ache/B2m/yl	22	7305	ENSMUSGcTgln1	22134	-01219775	013146899012	03275	2
538	11	GO:004858 developme 24/5/19	201/8076	0.002332	0.032853	0.027761	Bcan/Cdh4	24	7312	ENSMUSGcThbs4	21828	-01242593	0270709301775	0285	2
539	11	GO:000188 receptor re 8/5/19	38/8076	0.002422	0.033846	0.0286	Ache/Ecel	8	7327	ENSMUSGcThsd7b	330267	-06353494	00942178600275	04375	2
540	11	GO:004671 viral entry 8/5/19	38/8076	0.002422	0.033846	0.0286	Cav1/Ctsb	8	7328	ENSMUSGcThsd7b	210417	-00612903	0160155000335	-0005	2
541	11	GO:000941 response t 19/5/19	146/8076	0.002454	0.034167	0.028872	Acs11/Atq	19	7335	ENSMUSGcTial1	21843	-0962688	02629589802	005	2
542	11	GO:190382 organic ac 14/5/19	94/8076	0.002553	0.03477	0.029381	Acs11/Acs1l	14	7377	ENSMUSGcTm9sf4	99237	-03230885	0145629220515	02025	2
543	11	GO:190503 carboxylic :14/5/19	94/8076	0.002553	0.03477	0.029381	Acs11/Acs1l	14	7384	ENSMUSGcTm9sf4	68944	-02483556	005837744035	02575	2
544	11	GO:000661 sphingosin 4/5/19	Oct-76	0.002592	0.03477	0.029381	Asah1/Asal	4	7389	ENSMUSGcTmed2	5634	-03891420	0044372410575	00025	2
545	11	GO:000955 detection i 4/5/19	Oct-76	0.002592	0.03477	0.029381	Itgav/Ryrr2	4	7389	ENSMUSGcTmed4	103694	-03862276	01078644502075	0145	2
546	11	GO:005506 chloride io 4/5/19	Oct-76	0.002592	0.03477	0.029381	Cacna1a/S1	4	7394	ENSMUSGcTmeff1	230157	-04078655	00895377100525	00825	2
547	11	GO:005506 monomast 4/5/19	Oct-76	0.002592	0.03477	0.029381	Cacna1a/S1	4	7395	ENSMUSGcTmeff2	56363	-05232448	00301040901975	0205	2
548	11	GO:009711 postsynapt 4/5/19	Oct-76	0.002592	0.03477	0.029381	Cdh2/Nlgn	4	7400	ENSMUSGcTmem115	56395	-03234979	0249966001375	03025	2
549	11	GO:009871 sodium ion 4/5/19	Oct-76	0.002592	0.03477	0.029381	Hcn4/S1lcn	4	7408	ENSMUSGcTmem131	56390	-01894377	0301149050015	03875	2
550	11	GO:20008C regulation 4/5/19	Oct-76	0.002592	0.03477	0.029381	Cdh2/Nlgn	4	7409	ENSMUSGcTmem132a	98170	-01176643	02392895202475	0425	2
551	11	GO:003505 response t 5/5/19	16/8076	0.002593	0.03477	0.029381	B2m/Chrn1	5	7411	ENSMUSGcTmem132c	208213	-03083672	021703339-0095	0185	2
552	11	GO:005145 regulation 9/5/19	47/8076	0.00264	0.035261	0.027996	Atp6b1/Atq	9	7413	ENSMUSGcTmem132c	209833	-02255400	017682540-0115	027	2
553	11	GO:000004 transition r 10/5/19	56/8076	0.002681	0.035465	0.029969	Atp7a/B2r	10	7424	ENSMUSGcTmem161t	72745	-02768461	02125655201125	03275	2
554	11	GO:008606 cell comm 6/5/19	23/8076	0.002694	0.035465	0.029969	Cacna1c/C	6	7438	ENSMUSGcTmem19	67226	-02882744	014787858018	03225	2
555	11	GO:190464 cellular res 6/5/19	23/8076	0.002694	0.035465	0.029969	Atp1a3/Cac	6	7443	ENSMUSGcTmem200k	622645	-03370287	02887346001615	03975	2
556	11	GO:200031 regulation 6/5/19	23/8076	0.002694	0.035465	0.029969	Cacng2/Cq	6	7445	ENSMUSGcTmem205	235043	-03310287	-0064703102825	-0035	2
557	11	GO:001585 organic hy 20/5/19	159/8076	0.002868	0.037353	0.031564	Abca1/Abc	20	7454	ENSMUSGcTmem240	381582	-01869214	-00113404-002	0265	2
558	11	GO:000194 postsynapt 8/5/19	39/8076	0.002879	0.037353	0.031564	Cdh2/Glrb	8	7456	ENSMUSGcTmem245	242474	-02811598	0315280580175	0185	2
559	11	GO:008606 cardiac mu 8/5/19	39/8076	0.002879	0.037353	0.031564	Ank3/Atp2	8	7466	ENSMUSGcTmem33	67878	-02017033	00478086802925	-00925	2
560	11	GO:009065 walking be 8/5/19	39/8076	0.002879	0.037353	0.031564	Cacna1c/A	8	7467	ENSMUSGcTmem35a	67564	-04039079	00518589602575	0115	2
561	11	GO:19026C proton tra 11/5/19	66/8076	0.002952	0.03803	0.032136	Atp1a1/Atq	11	7468	ENSMUSGcTmem38a	74166	-02213943	01127747902125	0015	2
562	11	GO:00705C calcium ion 7/5/19	31/8076	0.002952	0.03803	0.032136	Cacna1c/A	7	7470	ENSMUSGcTmem41a	66664	-02647183	03041354205	017	2
563	11	GO:004405 membrane 9/5/19	48/8076	0.003068	0.039086	0.033028	Ank3/Ankl	9	7476	ENSMUSGcTmem62	96957	-02061838	0054069220175	03925	2
564	11	GO:004646 membrane 10/5/19	57/8076	0.00307	0.039086	0.033028	Asah1/Asal	10	7477	ENSMUSGcTmem63b	224807	-01638906	017624346026	00225	2
565	11	GO:199077 protein loc 32/5/19	300/8076	0.00307	0.039086	0.033028	Adam22/A	32	7481	ENSMUSGcTmem68	72098	-05278838	021769331001	01575	2
566	11	GO:000751 muscle org 18/5/19	138/8076	0.003077	0.039086	0.033028	Cav1/Chat	18	7484	ENSMUSGcTmem87a	211499	-03821013	013415557041	00625	2
567	11														



628	15	GO:003001	actin cytosol	49/466	482/8076	6.14E-05	0.04547	0.043367	Adgrb1/Ag	49	104	ENSMUSG	Acat2	110460	004276351	-02092559	01575	00575	3	
629	16	GO:000037	RNA splicing	22/249	221/8076	1.09E-06	0.000781	0.000781	Cdk1/Ddx	22	105	ENSMUSG	Acdb3	170760	010839632	-0114605	-01625	02	3	
630	16	GO:000037	RNA splicing	22/249	221/8076	1.09E-06	0.000781	0.000781	Cdk1/Ddx	22	113	ENSMUSG	Accl1	11428	014227898	-0074125	-00820	0055	3	
631	16	GO:000035	mRNA splicing	22/249	221/8076	1.09E-06	0.000781	0.000781	Cdk1/Ddx	22	116	ENSMUSG	Actc11	329910	023979754	-01862288	017	021	3	
632	16	GO:000838	RNA splicing	27/249	314/8076	1.71E-06	0.000781	0.000781	Alyref/Cdk	27	119	ENSMUSG	Actc7	70025	-00019900	-02847492	00075	02425	3	
633	16	GO:004348	regulation	15/249	127/8076	7.58E-06	0.004032	0.004032	Hnrnp/Khi	15	138	ENSMUSG	Actg1	11465	-00094126	-01935727	-02025	00925	3	
634	16	GO:004802	regulation	12/249	85/8076	1.01E-05	0.004476	0.004476	Khdbs2/M	12	139	ENSMUSG	Actl6a	56456	00072791	-00769368	001	01375	3	
635	16	GO:000635	mRNA processing	26/249	359/8076	4.08E-05	0.015524	0.015524	Alyref/Cdk	26	143	ENSMUSG	Actn4	60595	-01053492	-01076025	00095	-007	3	
636	16	GO:005068	regulation	12/249	104/8076	7.89E-05	0.026247	0.026247	Khdbs2/M	12	144	ENSMUSG	Actr10	56444	010696186	-01253654	-002	-01025	3	
637	16	GO:000038	alternative splicing	9/249	61/8076	9.30E-05	0.027504	0.027504	Cdk1/Khd	9	146	ENSMUSG	Actr1b	226977	010290425	-00964591	-00075	0115	3	
638	16	GO:000024	spliceosome	7/249	39/8076	0.000161	0.042819	0.042819	Ddx39b/Rb	7	156	ENSMUSG	Acyc3	71670	-00635982	-00984186	-00075	0025	3	
639	17	GO:000761	behavior	29/137	482/8076	1.41E-09	3.33E-06	3.00E-06	Adora2a/C	29	158	ENSMUSG	Acyp2	75572	00762606	-02463807	-01325	016	3	
640	17	GO:000761	learning	14/137	141/8076	9.67E-08	0.000114	0.000103	Crh/Dbh/D	14	159	ENSMUSG	Ada	11486	-01384738	-02031512	-01025	01475	3	
641	17	GO:005085	cognition	18/137	248/8076	1.71E-07	0.000121	0.000109	Arh/Chr/Dt	18	171	ENSMUSG	Adad2	66757	005128254	-02778304	-0004	0125	3	
642	17	GO:000761	learning or	17/137	224/8076	2.04E-07	0.000121	0.000109	Arh/Chr/Dt	17	183	ENSMUSG	Adcypp1r1	11517	-00100842	00771036	1006	-00175	3	
643	17	GO:000721	neuropeptide	7/137	28/8076	3.05E-07	0.000144	0.00013	Ectrl/Gpr3	7	186	ENSMUSG	Adc3	27360	010424047	-01829075	0002	-0075	3	
644	17	GO:000761	locomotion	15/137	189/8076	6.32E-07	0.000249	0.000224	Adora2a/C	15	198	ENSMUSG	Adgr13	319387	00436890	-01046881	0403	01825	3	
645	17	GO:004852	positive regulation	6/137	22/8076	1.27E-06	0.000377	0.00034	Adora2a/C	6	204	ENSMUSG	Adnp	11538	01113511	-00944223	-0045	-0055	3	
646	17	GO:000838	associative	10/137	85/8076	1.51E-06	0.000377	0.00034	Crh/Dbh/D	10	205	ENSMUSG	Ado	211488	-00085706	-00219005	-0165	018	3	
647	17	GO:000197	response to	5/137	13/8076	1.51E-06	0.000377	0.00034	Adora2a/C	5	211	ENSMUSG	Adprs	100206	-00634495	-00197037	-0185	-00325	3	
648	17	GO:000683	neurotransmission	14/137	177/8076	1.60E-06	0.000377	0.00034	Adora2a/C	14	227	ENSMUSG	Afg3l2	69597	-0047984	-014668424	-01425	-00325	3	
649	17	GO:001407	response to	5/137	14/8076	2.31E-06	0.000489	0.000441	Adora2a/C	5	228	ENSMUSG	Aftph	216549	006164861	-002253785	-01	-003	3	
650	17	GO:001585	organic h	13/137	159/8076	2.65E-06	0.000489	0.000441	Adora2a/C	13	229	ENSMUSG	Agap	11593	-010405729	-006096521	-008	01625	3	
651	17	GO:001584	monoamine	9/137	71/8076	2.73E-06	0.000489	0.000441	Adora2a/C	9	232	ENSMUSG	Agap3	213990	016799202	-00516894	-00375	0205	3	
652	17	GO:004275	eating behavior	6/137	25/8076	2.90E-06	0.000489	0.000441	Adora2a/C	6	236	ENSMUSG	Agk	69923	009311694	-02260093	-00625	-00125	3	
653	17	GO:000155	regulation	13/137	170/8076	5.58E-06	0.000879	0.000792	Adora2a/C	13	242	ENSMUSG	Agpat3	28169	004408537	-00123001	-0015	01275	3	
654	17	GO:002306	signal release	19/137	358/8076	8.70E-06	0.00119	0.001073	Acvr1/Ad	19	248	ENSMUSG	Agtpbp1	67269	017462482	-00389439	-01	014	3	
655	17	GO:005193	catecholamine	8/137	62/8076	8.74E-06	0.00119	0.001073	Adora2a/C	8	253	ENSMUSG	Ahdcl1	230793	010561841	-00893926	00095	00775	3	
656	17	GO:004241	dopamine	6/137	30/8076	9.07E-06	0.00119	0.001073	Dbh/Drd1	6	254	ENSMUSG	Ahi1	52906	015640378	-00224914	-0400625	-00125	3	
657	17	GO:000716	G protein-coupled	17/137	301/8076	1.21E-05	0.001459	0.001315	Actn2/Ad	17	259	ENSMUSG	Aida	108909	004775836	-00511152	-0001	-00275	3	
658	17	GO:001583	amine trans	9/137	85/8076	1.24E-05	0.001459	0.001315	Adora2a/C	9	265	ENSMUSG	Aimp1	13722	001935891	-01502493	-00075	022	3	
659	17	GO:000715	homophilic	8/137	66/8076	1.40E-05	0.001577	0.001421	Cadm2/Cdl	8	267	ENSMUSG	Aip	11632	003756646	-01377073	-00275	003	3	
660	17	GO:001905	reproduction	6/137	33/8076	1.62E-05	0.001742	0.00157	Dbh/Drd1	6	270	ENSMUSG	Ak1	11636	004671233	-02139233	-00085	-00775	3	
661	17	GO:000761	memory	10/137	113/8076	2.00E-05	0.001868	0.001683	Arh/Dbh/D	10	273	ENSMUSG	Ak4	11639	011311365	-00358520	-00175	00115	3	
662	17	GO:003000	metal ion	22/137	486/8076	2.02E-05	0.001868	0.001683	Actn2/Ad	22	274	ENSMUSG	Ak5	229949	017747712	-007480493	-0005	0205	3	
663	17	GO:005080	modulation	21/137	450/8076	2.03E-05	0.001868	0.001683	Adora2a/C	21	281	ENSMUSG	Akap6	238161	-01289734	007671646	000525	00625	3	
664	17	GO:000917	regulation	21/137	451/8076	2.10E-05	0.001868	0.001683	Adora2a/C	21	290	ENSMUSG	Akt1s1	67605	013794629	-00471628	0003	-003	3	
665	17	GO:000196	synaptic transmission	5/137	21/8076	2.14E-05	0.001868	0.001683	Adora2a/C	5	292	ENSMUSG	Akt3	23797	016320947	-0007109	000375	00625	3	
666	17	GO:000656	catecholamine	6/137	35/8076	2.31E-05	0.001884	0.001697	Dbh/Drd1	6	293	ENSMUSG	Aktip	14339	-00716747	-02474110	-0215	01025	3	
667	17	GO:000971	catecholamine	6/137	35/8076	2.31E-05	0.001884	0.001697	Dbh/Drd1	6	297	ENSMUSG	Aldh18a1	56454	006592311	-01698093	-024	0005	3	
668	17	GO:005080	positive regulation	11/137	154/8076	5.70E-05	0.004417	0.00398	Adora2a/C	11	301	ENSMUSG	Aldh1b1	72535	-00685925	-01801106	-01425	-00275	3	
669	17	GO:005195	regulation	8/137	80/8076	5.80E-05	0.004417	0.00398	Adora2a/C	8	304	ENSMUSG	Aldh2	11669	0089193725	-01030388	-490654e-1	-01	001	3
670	17	GO:009874	cell-cell adhesion	10/137	130/8076	6.71E-05	0.00483	0.004353	Cadm2/Cdl	10	313	ENSMUSG	Aldoc	11676	021073183	-01125874	00025	-00925	3	
671	17	GO:001587	dopamine	6/137	42/8076	6.78E-05	0.00483	0.004353	Drd1/Oprk	6	325	ENSMUSG	Aklkhh6	233065	-00304467	-00959817	01825	01125	3	
672	17	GO:000727	synaptic transmission	4/137	14/8076	6.95E-05	0.00483	0.004353	Adora2a/C	4	332	ENSMUSG	Amarc	17117	009347005	-00338994	-002	-0005	3	
673	17	GO:005104	regulation	19/137	424/8076	9.05E-05	0.006111	0.005306	Acvr1/Ad	19	335	ENSMUSG	Amer2	72125	-02406306	-023409823	-01125	11775e-1	3	
674	17	GO:009866	cell-cell adhesion	19/137	426/8076	9.64E-05	0.006324	0.005699	Adora2a/C	19	346	ENSMUSG	Amet	434437	006817978	-02377880	02425	00375	3	
675	17	GO:000681	sodium ion	10/137	138/8076	0.000111	0.007085	0.006385	Asic4/Hecv	10	347	ENSMUSG	Amz2	13929	011820421	-008711109	-009	-0015	3	
676	17	GO:000726	neurotransmission	10/137	140/8076	0.000125	0.007579	0.00683	Adora2a/C	10	348	ENSMUSG	Anapc1	17222	-00002982	010651406	-006	-00675	3	
677	17	GO:009964	signal release	10/137	140/8076	0.000125	0.007579	0.00683	Adora2a/C	10	351	ENSMUSG	Anapc2	99152	008335586	-00789739	-00275	0045	3	
678	17	GO:005043	regulation	6/137	47/8076	0.000129	0.007645	0.006889	Adora2a/C	6	353	ENSMUSG	Anapc5	59008	01263371C	-00032176	-01325	0085	3	
679	17	GO:190353	regulation	18/137	404/8076	0.000151	0.008277	0.007864	Acvr1/Ad	18	354	ENSMUSG	Anapc7	56317	-00506861	-00951784	-01075	02375	3	
680	17	GO:004205	regulation	4/137	17/8076	0.000159	0.008936	0.008052	Drd1/Gpr3	4	357	ENSMUSG	Ank2	109676	003795384	-01024904	-000275	017	3	
681	17	GO:000854	visual learning	6/137	50/8076	0.000184	0.010095	0.009097	Dbh/Drd1	6	360	ENSMUSG	Ankyf1	11736	007088741	-00801354	-0005	-00725	3	
682	17	GO:000657	biogenic amine	6/137	51/8076	0.000205	0.010846	0.009774	Dbh/Drd1	6	368	ENSMUSG	Ankrd13d	68423	019013195	-00750821	-004	392523e-1	3	
683	17	GO:005158	regulation	8/137	96/8076	0.000211	0.010846	0.009774	Adora2a/C	8	371	ENSMUSG	Ankrd28	105522	-00661703	-00122164	-00875	00525	3	
684	17	GO:006025	long-term	8/137	96/8076	0.000211	0.010846	0.009774	Adora2a/C	8	409	ENSMUSG	Aox1	11761	-01609404	-00397622	-00625	0045	3	
685	17	GO:000763	visual behavior	6/137	52/8076	0.000229	0.011509	0.010371	Dbh/Drd1	6	413	ENSMUSG	Ap1s1	11769	-00952313	-02967964	006	01875	3	
686	17	GO:004206	regulation	4/137	19/8076	0.000252	0.012402	0.011176	Drd1/Gpr3	4	420	ENSMUSG	Ap3b1	11774	020729734	-000416378	-01725	00725	3	
687	17	GO:005043	catecholamine	6/137	54/8076	0.000283	0.013509	0.012173	Adora2a/C	6	421	ENSMUSG	Ap3b2	11775	025755807	-00673506	-00095	01325	3	
688	17																			



769	ENSMUSGCBcl10	12042	-00119158	-00214011	01025	02075	3
773	ENSMUSGCBcl21	12048	015171944	-00059404	01475	021	3
776	ENSMUSGCBcl7b	12054	00137303C	-01077552i	-00075	01325	3
778	ENSMUSGCBcr	110279	003330052	-00622981i	-00225	-00375	3
782	ENSMUSGCBecn1	56208	006894005	-00659904	00085	0045	3
792	ENSMUSGCBid	12122	004767377	006002506	018	00325	3
799	ENSMUSGCBimh	104184	002873538	-01502710i	00475	00025	3
801	ENSMUSGCBloc1s2	73689	-01247780	-02109788	000875	027	3
804	ENSMUSGCBlvrb	233016	-00652760	-01551010i	00425	-004	3
805	ENSMUSGCBmerb1	67254	010323953	-01829720	016	012	3
807	ENSMUSGCBmpr1a	12166	-00294719	010539229	00375	01675	3
819	ENSMUSGCBok	51800	-00035915	-01168994i	-018	-0015	3
824	ENSMUSGCBorcs5	67774	005330865	-00326205i	00125	0065	3
834	ENSMUSGCBrap	72399	004351305	-00428004i	-008	01725	3
836	ENSMUSGCBrrcc3	210765	006635933	-00017278i	00225	00625	3
848	ENSMUSGCBrric1	67832	015092055	-00011746i	00035	00225	3
857	ENSMUSGCBsdc1	100383	-01004727	-00582776i	-00175	02225	3
871	ENSMUSGCBud31	231889	006549515	-00990593i	006	-0045	3
888	ENSMUSGCB9orf72	73205	007084684	004207356	00175	0075	3
912	ENSMUSGCBcacnb4	12298	-00525387	000519902	-0025	-0055	3
921	ENSMUSGCBcad	69719	022037695	004368327	01925	01625	3
938	ENSMUSGCBcamk1	52163	002383225	000489363	01675	0105	3
942	ENSMUSGCBcamk2b	13233	009917048	-00363437i	-0095	008	3
943	ENSMUSGCBcamk2d	108058	004959782	-00688226i	0155	02075	3
948	ENSMUSGCBcamk2	207565	012319837	-00268207i	00775	0095	3
949	ENSMUSGCBcamkmt	73582	00622185C	-02079851i	-005	-0115	3
953	ENSMUSGCBcamps3	69697	023503358	004447036	-001	02225	3
956	ENSMUSGCBcand1	71902	015022855	-00251786i	00325	-003	3
963	ENSMUSGCBcapn1	12333	-00565996	-01173144i	00875	0055	3
965	ENSMUSGCBcapn2	12334	-00548173	-01550780	-00725	-0045	3
968	ENSMUSGCBcapns1	12336	003500925	-01525243i	-0025	-003	3
970	ENSMUSGCBcapza1	12340	017228607	006379791	01075	01875	3
972	ENSMUSGCBcapzb	12345	007464481	-01231691i	-0055	01575	3
976	ENSMUSGCBcarmil1	68732	014548836	-00982160i	0165	01475	3
987	ENSMUSGCBcaskin2	140721	-00945047	009264776	-00675	-0035	3
1011	ENSMUSGCBcbr3	109857	-00496099	03225153	-00225	-00775	3
1013	ENSMUSGCBcbs	12411	024658334	-01666405i	0125	02575	3
1016	ENSMUSGCBcbx5	12419	006106694	-00744117	009	-0035	3
1018	ENSMUSGCBcby1	73739	001131833	-01357901i	-0165	-0045	3
1029	ENSMUSGCBcdc124	234388	-00565751	-03272518	-0125	028	3
1032	ENSMUSGCBcdc136	232664	013536195	-00968878i	01225	-00475	3
1038	ENSMUSGCBcdc184	239650	-01386018	-03517612i	-0045	-001	3
1040	ENSMUSGCBcdc22	54638	038112005	-00333480i	00085	00575	3
1055	ENSMUSGCBcdc88a	108686	010540904	009837648	-00775	02275	3
1059	ENSMUSGCBcdc91	67015	009539106	-01518728	-00625	-01025	3
1060	ENSMUSGCBcdc92	215707	009406104	-01248727i	-00975	0145	3
1076	ENSMUSGCBccs	12460	-00032621	-02803059	00025	01175	3
1080	ENSMUSGCBcct2	12461	001525732	-02031663i	-009	-00125	3
1081	ENSMUSGCBcct3	12462	008316818	-01966444	-00325	0195	3
1083	ENSMUSGCBcct5	12465	011871615	-00960818i	0095	005	3
1084	ENSMUSGCBcct6a	12466	012899533	-00874675i	0045	-00675	3
1086	ENSMUSGCBcct8	12469	011725133	-02032061i	-01175	-0045	3
1099	ENSMUSGCBcd44	12505	-01295632	008216048	-00475	-00025	3
1110	ENSMUSGCBcdc16	69957	000635136	-00678919i	0145	0045	3
1114	ENSMUSGCBcdc34	216150	011923377	-01071948i	-01275	02	3
1119	ENSMUSGCBcdc42bpa	226751	017084172	-00480890	008	-00375	3
1123	ENSMUSGCBcdc42ep4	56699	-00100931	-01567019i	-0115	02175	3
1155	ENSMUSGCBcdk5r1	12569	-00327329	005181693	-00725	0105	3
1157	ENSMUSGCBcdk5rap3	80280	007315118	-00984187i	-011	01725	3
1159	ENSMUSGCBcdk9	107951	02445025C	-00585516i	01375	02025	3
1160	ENSMUSGCBcdkal1	68916	-00477261i	-01206868	-00475	01	3
1176	ENSMUSGCBcell6	76183	022563327	-00041172i	0115	0125	3
1188	ENSMUSGCBcep41	83922	-00713493	000596733	01	02275	3
1192	ENSMUSGCBcerk	223753	007012351	-00756805i	-014	01275	3
1202	ENSMUSGCBcfap300	234912	019899948	006419191	0002	01875	3
1203	ENSMUSGCBcfap36	216618	006354468	-01400996	-0145	00725	3
1204	ENSMUSGCBcfap410	67884	000538384	-00011384i	-01625	01525	3
1207	ENSMUSGCBcfdp1	23837	003182024	-02620459i	-013	00325	3
1220	ENSMUSGCBchcd2	14004	005342362	-02666068	-022	01575	3
1223	ENSMUSGCBchcd5	66170	-00354548	-02738599	0205	01625	3
1227	ENSMUSGCBchd3	216848	022420408	003109431	-008	0225	3
1228	ENSMUSGCBchd4	107932	-00589892	-00594796i	-00075	-002	3
1237	ENSMUSGCBchic1	12212	-00309146	000532788	-785046e-1	-0105	3
1246	ENSMUSGCBchmp2a	68953	006317647	-01626435i	-0205	014	3
1249	ENSMUSGCBchmp4b	75608	001252484	-02375237	-0205	00525	3
1253	ENSMUSGCBchn1	108699	003716974	-01267040	00675	00675	3
1254	ENSMUSGCBchn2	69993	001670003	005767651	000525	-00225	3
1269	ENSMUSGCBchuk	12675	-00004566	009641026	0005	01575	3
1273	ENSMUSGCBclao3	67563	015119028	004586035	0185	002	3
1274	ENSMUSGCBclapin1	109006	-00207631	-00234098i	017	016	3
1285	ENSMUSGCBckap5	75786	016089078	-01294209	00825	00425	3
1287	ENSMUSGCBckmt1	12716	-00631939	-02737418	-0165	01675	3
1299	ENSMUSGCBcldn10	58187	-01563305	-01639098i	-00125	005	3
1306	ENSMUSGCBclec2l	665180	000907911	-00462582i	-00075	01125	3
1314	ENSMUSGCBclip2	269713	-00664275	-00989526	-0125	018	3
1316	ENSMUSGCBclip4	78785	-00278914	004802239	-01225	0185	3
1317	ENSMUSGCBclmn	94040	00606010C	-00032801i	-011	0275	3
1321	ENSMUSGCBclns1a	12729	004384211	-01274320i	0005	01025	3
1323	ENSMUSGCBclipb	20480	009751327	-00364911i	-013	01825	3
1327	ENSMUSGCBclpx	270166	011766697	-00317764i	-01925	0055	3
1336	ENSMUSGCBclvs1	74438	-01256675	-01491238i	00015	-00125	3
1348	ENSMUSGCBcmtm4	97487	002685094	005338263	-01625	0165	3
1352	ENSMUSGCBcndp2	66054	-00035934	-01141378i	0017	00225	3
1365	ENSMUSGCBcnott1	234594	021735561	004914378	00025	02025	3
1367	ENSMUSGCBcnott11	52846	000974976	000950583	-014	021	3
1370	ENSMUSGCBcnott4	53621	003205673	-00374417i	-00125	-00425	3
1372	ENSMUSGCBcnott7	18983	000194855	005274345	01775	00575	3
1373	ENSMUSGCBcnott9	58184	-00307823	000200298	00035	-009	3
1396	ENSMUSGCBcoa4	68185	010408735	-03338707i	02175	01375	3
1398	ENSMUSGCBcoa7	69893	013730585	002256941	-01475	00475	3
1406	ENSMUSGCBcog3	338337	008179496	-00128675i	-002	0115	3
1407	ENSMUSGCBcog4	102339	016983807	-00890284	-00475	01825	3
1408	ENSMUSGCBcog5	238123	003345308	-00325530i	00025	-0045	3
1423	ENSMUSGCBcol6a1	12833	-00485126	002201028	-0125	0245	3
1429	ENSMUSGCBcommd10	69456	008182012	-02150886i	-003	016	3
1431	ENSMUSGCBcommd3	12238	-00073211	003308912	00005	0175	3
1433	ENSMUSGCBcommd6	66200	00613408	-01688907	002	00225	3
1434	ENSMUSGCBcommd7	99311	001860724	-00774232i	-0055	006	3
1435	ENSMUSGCBcommd8	27784	006891475	-00665348i	-013	00375	3
1443	ENSMUSGCBcogg1	54161	013956404	-01334627	-004	024	3
1447	ENSMUSGCBcops3	26572	-00370072	-00810956i	0005	002	3
1448	ENSMUSGCBcops4	26891	006737585	-01321668i	-00575	-0095	3
1453	ENSMUSGCBcops8	108679	002055456	-01080656i	00225	0105	3
1457	ENSMUSGCBcoq10a	210582	-00524573	-01152907i	00825	01275	3
1460	ENSMUSGCBcoq4	227683	004250792	-00572313i	00005	0145	3
1468	ENSMUSGCBcoro1b	23789	003161514	002083164	00055	02275	3
1474	ENSMUSGCBcotl1	72042	012420539	-01397413i	-01925	021	3
1475	ENSMUSGCBcox10	70383	-00640457	005428475	01975	00675	3
1486	ENSMUSGCBcox5b-ps	1E+08	-02375583	-05699028i	-022	01375	3
1488	ENSMUSGCBcox6a2	12862	-00506272	-00970232	-02175	-00075	3
1497	ENSMUSGCBcpe	12876	009524008	-00211220i	00875	012	3
1499	ENSMUSGCBcpeb3	208922	-00755409	-00469119	0105	0015	3
1503	ENSMUSGCBcpix3	235415	019546755	-01231427i	-01675	02575	3
1508	ENSMUSGCBcpne5	240058	-02502052	-02521772i	0001	029	3
1511	ENSMUSGCBcpne8	66871	-00467890	-00514831	0175	018	3
1554	ENSMUSGCBcrppa	75847	-00584638	-02808011i	-02025	00175	3



1564	ENSMUSGcCrym	12971	-02780915-	-03052889-0105	01425	3
1568	ENSMUSGcCs	12974	006461675-	-02289597-	-01075	-00325 3
1572	ENSMUSGcCse1l	110750	002709181	011463526-	-0105	-002 3
1581	ENSMUSGcCsnk1g1	214897	-00208395-	-00367618-	-013	-0005 3
1596	ENSMUSGcCstf2t	83410	-00195402	-01193491-	-0155	02075 3
1597	ENSMUSGcCstf3	228410	-00149764	009383492	01275	-0025 3
1598	ENSMUSGcCstpp1	228356	007441176-	-01785533	010165	0155 3
1611	ENSMUSGcCtnna1	12385	015323188-	-00055171	01014	00875 3
1612	ENSMUSGcCtnna2	12386	019120973-	-01192319	00095	0015 3
1618	ENSMUSGcCtnnd2	18163	015327087-	-00849733	00055	-00225 3
1621	ENSMUSGcCtnr9	22083	005497523	000365643	0005	-00275 3
1632	ENSMUSGcCttm	13043	01237403	-00229446-	-017	009 3
1633	ENSMUSGcCttmbp2	30785	003063735-	-00315043-	-0125	0045 3
1636	ENSMUSGcCtu2	66965	007144211	007316537-	-00425	-00275 3
1637	ENSMUSGcCuedc2	67116	-00539219-	-02542758-	-0145	00575 3
1638	ENSMUSGcCu11	26965	008513613	009215891-	-002	-002 3
1639	ENSMUSGcCu12	71745	000538688	0005112000275		00275 3
1641	ENSMUSGcCu14a	99375	012716413-	-00272876-	-00425	-007 3
1649	ENSMUSGcCwc15	66070	005294048-	-01343219-	-00725	-003 3
1662	ENSMUSGcCyb5b	66427	008099717-	-01415101	000375	-00975 3
1665	ENSMUSGcCyb5r3	109754	-00789120-	-01328120	000075	-0075 3
1666	ENSMUSGcCyb5r4	266690	017616181	002595603-	-004	01225 3
1671	ENSMUSGcCyflp2	76884	013149107-	-00475895-	-00055	00925 3
1684	ENSMUSGcCyria	76820	015221022-	-00442511	01625	00025 3
1688	ENSMUSGcCyth1	19157	006854380	008875491-	-016	002 3
1700	ENSMUSGcDaam1	208846	-01248124	-02259926-	-00325	-0095 3
1702	ENSMUSGcDab1	13131	007851471-	-00952434-	-0225	00575 3
1703	ENSMUSGcDab2	13132	00234631C-	-00178348	00095	015 3
1725	ENSMUSGcDbnl	13169	011476916-	-01098775	00075	0125 3
1734	ENSMUSGcDcaf7	71833	004915607-	-00693799	01025	0065 3
1735	ENSMUSGcDcaf8	98193	014456336	003020748-	-01325	005 3
1740	ENSMUSGcDclik2	70762	002705544-	-00570214-	-00125	00825 3
1744	ENSMUSGcDcp2	70640	008248905-	-00014435	00025	0125 3
1748	ENSMUSGcDctn3	53598	002328285-	-02058543-	-022	005 3
1749	ENSMUSGcDctn4	67665	014286026	004929772	000925	01075 3
1751	ENSMUSGcDctn6	22428	-00360421-	-01518144-	-0165	0255 3
1765	ENSMUSGcDdhd1	114874	002624184-	-00588636	000625	00525 3
1779	ENSMUSGcDdx20	53975	007882752-	-01220472	000425	-00275 3
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1809	ENSMUSGcDennd1a	227801	01005827C	007084823-	-00025	0055 3
1812	ENSMUSGcDennd4a	102442	000437027-	-00260802-	-02225	00075 3
1815	ENSMUSGcDennd5a	19347	007451587-	-01633801-	-00525	001 3
1819	ENSMUSGcDennr	68184	-00196604-	-02066415	000175	015 3
1820	ENSMUSGcDepdc5	277854	014250443	007688749	000125	00375 3
1827	ENSMUSGcDffa	13347	003391202-	-00362670	010175	0185 3
1844	ENSMUSGcDhth	71755	01359104C	003647719	00075	003 3
1847	ENSMUSGcDhyps	330817	001192066	001547113-	00065	00475 3
1853	ENSMUSGcDhrs7b	216820	-01925919-	-00104504-	-0025	0105 3
1863	ENSMUSGcDhvs7	106794	012350264	006169369-	00475	004 3
1864	ENSMUSGcDhvs8	217207	021031569	001771967-	-011	012 3
1872	ENSMUSGcDip2a	64451	000616943-	-00603392	000175	-00125 3
1873	ENSMUSGcDip2b	239667	011724486	007195039-	-01325	-0035 3
1878	ENSMUSGcDiras2	68203	001566295-	-01938441-	-004	-006 3
1880	ENSMUSGcDis3l2	208718	005523106-	-00066617	000075	00225 3
1888	ENSMUSGcDlgl1	13383	-00155874-	-00993466-	-007	-00125 3
1890	ENSMUSGcDlgl3	53310	013457977-	-00441530	01025	-0055 3
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1901	ENSMUSGcDmap1	66233	005555948-	-01193961-	-0035	-0025 3
1902	ENSMUSGcDmd	13405	002970976	006564989	000525	00925 3
1927	ENSMUSGcDnalc13	235567	005013282	009369601	01675	012 3
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1942	ENSMUSGcDnalc7	56354	001496878-	-00552378-	-005	01475 3
1948	ENSMUSGcDnlz	52838	008577102-	-00556161	0005	-011 3
1949	ENSMUSGcDnm1	13429	018743544-	-00240846-	-004	-0035 3
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1956	ENSMUSGcDnpep	13437	003027035-	-00382933	01075	-00575 3
1965	ENSMUSGcDock2	94176	-00073170-	-01125529-	-01225	02025 3
1978	ENSMUSGcDopt1a	320615	-00028399	012161030-	000175	00525 3
1981	ENSMUSGcDpcd	226162	-00189808-	-03049220-	-0065	00275 3
1985	ENSMUSGcDph2	67728	000351611-	-01389543-	-004	027 3
1987	ENSMUSGcDph6	66632	-00993555-	-01984979-	-0165	01525 3
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1996	ENSMUSGcDpp8	74388	013517128-	-00660802	000175	-0045 3
2001	ENSMUSGcDpy30	66310	00730610C-	-01075927-	-00675	0215 3
2003	ENSMUSGcDpysl2	12934	-0084202	-01981495	000875	-001 3
2007	ENSMUSGcDr1	13486	-00569297	011174813-	-0105	-004 3
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2011	ENSMUSGcDrg2	13495	001789283-	-00966574	196262e-1	-00175 3
2012	ENSMUSGcDrg2	13497	012002781-	-01331025	0035	005 3
2019	ENSMUSGcDtd2	328092	006391784-	-01221096	000225	016 3
2020	ENSMUSGcDtna	13527	009185757-	-01672130	000375	0045 3
2021	ENSMUSGcDtnb	13528	00963960C	000393530-	00095	02425 3
2031	ENSMUSGcDusp26	66959	002658292-	-00445697	00005	02325 3
2032	ENSMUSGcDusp28	67446	008287808-	-00133021-	-006	-0095 3
2033	ENSMUSGcDusp3	72349	-00071730-	-00821079-	-004	009 3
2034	ENSMUSGcDusp6	67603	-03061999-	-02512964	0002	-0005 3
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2041	ENSMUSGcDync1h1	13424	00172881C-	-00402721-	-012	00975 3
2043	ENSMUSGcDync1l2	13427	018441697-	-00465566-	-006	0155 3
2044	ENSMUSGcDync1li1	235661	007092906-	-00665141-	-00475	02275 3
2045	ENSMUSGcDync1li2	234663	-00288285-	-01532083	000475	01325 3
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2058	ENSMUSGcDzank1	241688	007321066-	-00625144	010175	0135 3
2076	ENSMUSGcEcpas	230249	007421052	00641412800125		01025 3
2089	ENSMUSGcEef1akmt1	68043	015955832-	-03138334-	-00175	01275 3
2096	ENSMUSGcEepd1	67484	-02895757	-03504973	-00175	-0015 3
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2101	ENSMUSGcEfl1	101592	016449773	00077058800925		02025 3
2119	ENSMUSGcEhd4	98878	-00061287	007964890	000275	147196e-1 3
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2129	ENSMUSGcEif2a	229317	-00594539-	-01085998	0003	00625 3
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2136	ENSMUSGcEif2b4	13667	011651797-	-00294938-	-01225	02775 3
2137	ENSMUSGcEif2b5	224045	008252296-	-00988820	01003	-0015 3
2138	ENSMUSGcEif2d	16885	011061812	006376104	000525	01625 3
2140	ENSMUSGcEif2s2	67204	007241014-	-00676034	000725	02525 3
2142	ENSMUSGcEif2s3y	26908	006036655	000064213	010125	-00525 3
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2151	ENSMUSGcEif3i	54709	00894435C-	-01878529	01085	0155 3
2152	ENSMUSGcEif3j1	78655	012467006-	-00385351-	-00775	02425 3
2160	ENSMUSGcEif4e	13684	-00038422-	-00881532	-003	-0055 3
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2165	ENSMUSGcEif4g2	13690	009519752-	-00526091	00035	01775 3
2168	ENSMUSGcEif5	217869	003788538-	-00879558	000225	-0025 3
2169	ENSMUSGcEif5a	276770	000407775-	-02466151	010225	011 3
2172	ENSMUSGcEif6	16418	010449955-	-00475031	000825	011 3
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2198	ENSMUSGcElp4	77766	00126545	-02578735-	-00825	0015 3
2199	ENSMUSGcElp5	54351	006810464-	-01106798	-00775	0155 3
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2224	ENSMUSGcEndog	13804	-00017195-	-02654358	-004	-012 3
2227	ENSMUSGcEngase	217364	-00368190	001206231	010125	01125 3



2228	ENSMUSGcEnho	69638	006589325	-02143842:157009e-1	00125	3	
2229	ENSMUSGcEno1	13806	001752445	-02080425:-0035	0175	3	
2232	ENSMUSGcEnoph1	67870	008243398	-00408687	-02	00475	3
2234	ENSMUSGcEnpp1	18605	-02236288	-01453837:00575	00875	3	
2243	ENSMUSGcEntpd5	12499	-00735132	006575260:00075	0095	3	
2248	ENSMUSGcEp400	75560	009383395	008731525	-01175	016	3
2251	ENSMUSGcEp4112	13822	009256051	-01803459	-00975	-00175	3
2257	ENSMUSGcEpg5	1.01E+08	008198909	006444709	-00825	-007	3
2264	ENSMUSGcEphb1	270190	-00021006	001202383	-011	-00525	3
2269	ENSMUSGcEphx2	13850	-00357672	-03813684:0185	01375	3	
2274	ENSMUSGcEpn2	13855	001143423	-00219491	-02225	00425	3
2291	ENSMUSGcErf	13875	-01272860	002440111	-016	-00075	3
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2297	ENSMUSGcErh3	140546	008752116	-01393079:00625	0085	3	
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2328	ENSMUSGcExoc2	66482	-00159644	-01453128:0105	-00425	3	
2332	ENSMUSGcExoc6	107371	007328655	-00128505:0225	00175	3	
2333	ENSMUSGcExoc6b	75914	-00087144	-00743246	-0005	-007	3
2334	ENSMUSGcExoc7	53413	013584046	-00526820:00275	-00775	3	
2335	ENSMUSGcExoc8	102058	029006268	003381823:00425	00675	3	
2336	ENSMUSGcExog	208194	-00834516	-00801873:013125	008	3	
2337	ENSMUSGcExosc1	66583	-00155227	-01419921:01925	01025	3	
2338	ENSMUSGcExosc10	50912	00456787C	005286370:0095	0015	3	
2351	ENSMUSGcEzr	22350	011099894	-0107513	-009	-00925	3
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2391	ENSMUSGcFam162a	70186	001410078	-01522046:001	-01	3	
2397	ENSMUSGcFam174a	67698	-02169937	-00370468	-00525	0055	3
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2407	ENSMUSGcFam219a	71901	002758315	-01523443:-00175	01425	3	
2414	ENSMUSGcFam78b	226610	004807982	-00423187:01725	011	3	
2417	ENSMUSGcFam91a1	210998	009423773	005864280:0065	-002	3	
2424	ENSMUSGcFars2	69955	005702256	-01757538	-0055	0015	3
2426	ENSMUSGcFarsb	23874	011639557	-00312496	-0005	02525	3
2427	ENSMUSGcFasn	14104	020569167	-00039800	00075	007	3
2430	ENSMUSGcFat1	14107	-01808455	-00325560	-0045	-0025	3
2441	ENSMUSGcFbxw15	68431	000501933	-00592314	-001	007	3
2465	ENSMUSGcFbxw11	103583	009896152	-00950959	0065	02225	3
2467	ENSMUSGcFbwv5	30839	011666825	-00882387	-00125	00975	3
2474	ENSMUSGcFcho1	74015	020277015	-00381808	00275	-00675	3
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2488	ENSMUSGcFerm13	108101	-00199885	01207657:0125	-0045	3	
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2521	ENSMUSGcFkbp1b	14226	017408681	001636596:00475	01225	3	
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2552	ENSMUSGcFn3krp	238024	006096088	-01573691:00225	02475	3	
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2567	ENSMUSGcFoxy2	68837	013035281	00375353:012	02	3	
2570	ENSMUSGcFoxy1	108655	-00947996	005291564	-013	00775	3
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2586	ENSMUSGcFryl	72313	-00087094	008935731	-00375	00675	3
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2589	ENSMUSGcFsd1l	319636	-01793306	008537786	-0035	01125	3
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2609	ENSMUSGcFxr2	23879	016679285	-00329192	-00375	025	3
2610	ENSMUSGcFxyd1	56188	-01410217	-00869550	-02	008	3
2625	ENSMUSGcGab2	14389	000115921	-01570173	-021	0015	3
2626	ENSMUSGcGabarapl1	57436	005597307	-01581234	004	021	3
2627	ENSMUSGcGabarapl2	93739	001637693	-02143702:01225	009	3	
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2705	ENSMUSGcGdap2	14547	-00499050	-00194962:005	-0045	3	
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2714	ENSMUSGcGemin5	216766	003401227	006706818:0195	01175	3	
2719	ENSMUSGcGfap	14580	023111434	-02875228	-01075	-00875	3
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2730	ENSMUSGcGga2	74105	-00091077	-00459369:002	0215	3	
2732	ENSMUSGcGgact	223267	-00384116	-02495659:01825	01575	3	
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2742	ENSMUSGcGid8	76425	00499972C	-01257500:015	011	3	
2762	ENSMUSGcGildc	104174	006076688	-01117574	0135	0015	3
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2776	ENSMUSGcGls2	216456	-00097570	-00836635i	-008	0145	3
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2836	ENSMUSGcGolga7	57437	-00178075	-01595098	-013	-00275	3
2837	ENSMUSGcGolga7b	71146	016987585	-00550772i	-0005	0105	3
2846	ENSMUSGcGorasp1	74498	-00216581	-01166611i	-001	00025	3
2849	ENSMUSGcGosr2	56494	00338537C	-01805759	-01	02725	3
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2927	ENSMUSGcGrip1	74053	-01797556	-01152230i	-01	3	
2931	ENSMUSGcGrk5	14773	004416231	-00529908	00005	3	
2932	ENSMUSGcGrk6	26385	017863021	00256874	040125	3	
2942	ENSMUSGcGrpel1	17713	00668906c	-02676036i	-025	3	
2944	ENSMUSGcGrsf1	231413	-00229254	-00784065i	-0005	3	
2946	ENSMUSGcGrwd1	101612	017466806	002336690	01475	3	
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2954	ENSMUSGcGspt1	14852	008652364	-00314833	00325	3	
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2957	ENSMUSGcGss	14854	-00348419	-01218582i	-001	3	
2964	ENSMUSGcGstm7	68312	-01046635	-01361721	-009	3	
2965	ENSMUSGcGsto1	14878	009498336	-00551586i	-01025	3	
2981	ENSMUSGcGtf2i	14886	014081147	000871975	-0015	3	
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2984	ENSMUSGcGtf3c3	98488	004305573	004868545	00125	3	
2986	ENSMUSGcGtf3c5	70239	014494168	0040403073	01075	3	
2996	ENSMUSGcGucy1b1	54195	001281393	002604942	196262e-1	0045	3
2998	ENSMUSGcGuk1	14923	000564391	-02635163	-004	3	
3007	ENSMUSGcH2ar2	77605	-00212052	-01666097i	-00925	3	
3019	ENSMUSGcHadhha	97212	009285955	-01995880	-00825	3	
3020	ENSMUSGcHadhbb	231086	009504769	-01928833i	-0165	3	
3028	ENSMUSGcHars1	15115	003650002	-00838094i	014	3	
3029	ENSMUSGcHars2	70791	010993498	005863414	00045	3	
3033	ENSMUSGcHbs1i	56422	010505481	-00517360i	0135	3	
3044	ENSMUSGcHdac2	15182	008846898	000449902	-00325	3	
3045	ENSMUSGcHdac3	15183	005614501	-00521589	00925	3	
3063	ENSMUSGcHeatr5b	320473	006421801	003773960	-01675	3	
3068	ENSMUSGcHectd1	207304	005543563	010051409	-196262e-1	01125	3
3070	ENSMUSGcHectd3	76608	011587628	004491672	-01125	3	
3071	ENSMUSGcHectd4	269700	007358608	010739106	015	3	
3075	ENSMUSGcHepacam	72927	-00558476	001918552	00075	3	
3077	ENSMUSGcHerc1	235439	-00734926	011374301	-001	3	
3078	ENSMUSGcHerc2	15204	-01468296	015592261	-01	3	
3092	ENSMUSGcHif1an	319594	003114444	004018529	-01725	3	
3112	ENSMUSGcHimgb2	97165	00063883c	-00744736i	-0145	3	
3127	ENSMUSGcHnnrpa1	15382	-01202174	-00732094	-009	3	
3130	ENSMUSGcHnnrpab	15384	003294432	001107708	-015	3	
3155	ENSMUSGcHpcal1	53602	012387624	-01878818	00525	3	
3163	ENSMUSGcHs1bp3	58240	022625805	-00102758i	-00075	3	
3169	ENSMUSGcHsd11b1i	15483	000721032	-01009524i	00375	3	
3170	ENSMUSGcHsd17b10	15108	010323905	-01980723i	-00175	3	
3185	ENSMUSGcHspa14	50497	007339752	-00863283i	-01425	3	
3188	ENSMUSGcHspa4	15525	021933666	-00734359i	-01925	3	
3189	ENSMUSGcHspa4l	18415	005842144	-01238450i	-01325	3	
3191	ENSMUSGcHspa8	15481	017923315	-00033779i	006	3	
3196	ENSMUSGcHspd1	15510	01107286c	-00873360i	-01275	3	
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3218	ENSMUSGcHba57	216792	001666814	-02707873i	-00375	3	
3219	ENSMUSGcHca1	15893	009432001	-00605859i	-00025	3	
3224	ENSMUSGcHde	15925	014547423	-00973844i	00625	3	
3225	ENSMUSGcHdh1	15926	009817276	-02175647i	-00075	3	
3236	ENSMUSGcHft122	81896	004749295	-01489516i	01205	3	
3237	ENSMUSGcHft140	106633	001031211	005810848	000525	3	
3245	ENSMUSGcHft80	68259	00985007c	-01420916i	01575	3	
3248	ENSMUSGcHgbp1	18518	014491942	001153613	-00025	3	
3251	ENSMUSGcHgf2r	16004	-01136230	016090772	00025	3	
3263	ENSMUSGcHgsf21	230868	-00584298	010628185	00075	3	
3266	ENSMUSGcHgsf9b	235086	-00236780	008838746	-01225	3	
3269	ENSMUSGcHkbkb	16150	014264153	003322251	-004	3	
3278	ENSMUSGcHldr2	1e+08	-01471325	007594697	-0055	3	
3280	ENSMUSGcHlf3	16201	017653977	005719947	-00875	3	
3281	ENSMUSGcHlk	16202	007222695	-00781973i	010175	3	
3290	ENSMUSGcHmpa2	114663	-02538723	-03944003i	-01325	3	
3291	ENSMUSGcHmpact	16210	00430000c	002694107	-008	3	
3292	ENSMUSGcHmpdh1	23917	004862651	002912065	000175	3	
3303	ENSMUSGcHnpp5b	16330	01014353c	005764872	-00925	3	
3308	ENSMUSGcHnpp5k	19062	010443805	005382047	00085	3	
3312	ENSMUSGcHnsyn1	319477	005340454	003903683	0013	3	
3313	ENSMUSGcHnsyn2a	627214	-01486694	-01929047	02075	3	
3316	ENSMUSGcHnts11	71957	017451851	-00098778i	000725	3	
3319	ENSMUSGcHnts14	69882	000446123	007077349	000925	3	
3325	ENSMUSGcHnts6	18130	000294053	000246915	-00675	3	
3326	ENSMUSGcHnts7	77065	004060318	005677752	-00425	3	
3334	ENSMUSGcHlps5	70572	014009905	-00334653	00075	3	
3338	ENSMUSGcHlqcbl1	320299	008436103	008679576	0005	3	
3356	ENSMUSGcHlscu	66383	-00585895	-02352648i	-013	3	
3362	ENSMUSGcHlsc2b	67441	-01741162	-00308641	-002	3	
3363	ENSMUSGcHlst1	71955	-00319630	013523138	-008	3	
3383	ENSMUSGcHlgb8	320910	-00668690	005721942	001325	3	
3386	ENSMUSGcHlth4	16427	-02030215	-02709860	01125	3	
3391	ENSMUSGcHltpa	16434	001603418	-00633211i	-0085	3	
3392	ENSMUSGcHltpk1	217837	01672011c	-00035163	-0125	3	
3396	ENSMUSGcHltp2	16439	-00504637	-00091082i	020075	3	
3401	ENSMUSGcHlvd	56357	011056521	-02025799	-0145	3	
3407	ENSMUSGcHakmip1	76071	-00158077	-02691942	-01175	3	
3408	ENSMUSGcHakmip2	76217	006405845	000299616	01175	3	
3409	ENSMUSGcHakmip3	74004	-00030670	-00248338i	-0025	3	
3414	ENSMUSGcHjmy	57748	00755852	010394842	0105	3	
3424	ENSMUSGcHjund	16478	-00312694	-01726502i	-014	3	
3435	ENSMUSGcHkatna1i	231912	007574274	-01248441	0005	3	
3439	ENSMUSGcHkbrbd2	210973	002665028	003163838	0017	3	
3496	ENSMUSGcHkctd10	330171	002651584	-00573481	00725	3	
3499	ENSMUSGcHkctd13	233877	010612075	-01282900i	-0075	3	
3506	ENSMUSGcHkctd5	69259	007867483	-01489877	0002	3	
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3518	ENSMUSGcHkeap1	50868	010704382	-00009382i	00125	3	
3520	ENSMUSGcHkdrbs1	20218	-00320906	-00949586i	-0115	3	
3529	ENSMUSGcHkif13b	16554	-02366449	-03274091i	-02225	3	
3534	ENSMUSGcHkif21b	16565	-00823254	-01792225i	00125	3	
3539	ENSMUSGcHkif5a	16572	016992603	-01256329i	-01075	3	
3540	ENSMUSGcHkif5c	16573	00879814c	-01782424i	-01425	3	
3541	ENSMUSGcHkif5c	16574	00564677c	-01166476i	-0085	3	
3542	ENSMUSGcHkifap3	16579	001408725	-01155906i	00055	3	
3550	ENSMUSGcHkic1	16593	004580084	-01791939	000275	3	
3557	ENSMUSGcHkhdca7a	242721	005478002	-03134614i	0195	3	
3560	ENSMUSGcHkih111	217194	000181708	-00339829i	00075	3	
3565	ENSMUSGcHkih26	234378	015023544	004390499	-00025	3	
3567	ENSMUSGcHkih36	234796	001522543	-00441619i	-00775	3	
3572	ENSMUSGcHkih9	242521	-00646247	000676853	000425	3	
3579	ENSMUSGcHkpnaf6	16650	008740337	-00149418	00075	3	
3580	ENSMUSGcHkpnbf1	16211	-00290453	004750528	588785e-1	-0085	3
3581	ENSMUSGcHkpntn	70394	-00136619	-01143316i	-0115	3	
3599	ENSMUSGcHlactb2	212442	-00093146	-00054805i	00125	3	
3600	ENSMUSGcHlama1	16772	-00510507	003562932	00075	3	
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3612	ENSMUSGcHlamtor3	56692	-00913082	-00105899	-0025	3	
3615	ENSMUSGcHlancd1	14768	-01052781	-01625144i	0155	3	
3627	ENSMUSGcHlars1	107045	005983464	-00430735i	01225	3	
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3656	ENSMUSGcHlgalsi	216551	012845019	004305916	-016	3	
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3670	ENSMUSGCLimch1	77569	-00023764	-02055043i	-027	003	3
3673	ENSMUSGCLimk1	16885	012096038	-01359020	00525	01975	3
3717	ENSMUSGCLpin1	14245	-00426957	00306713400425		01025	3
3722	ENSMUSGCLrba	80877	004531792	-01135723	-00675	01075	3
3733	ENSMUSGCLrp1	16971	-00806681	0084434780095		00075	3
3736	ENSMUSGCLrp4	228357	005386422	-01568455i	-157009e	-101775	3
3740	ENSMUSGCLrpprc	72416	024022077	-00499468	-01	00475	3
3747	ENSMUSGCLrrc40	67144	008539243	-00133534i	01575	02225	3
3752	ENSMUSGCLrrc57	66606	00250302c	-01315899i	01075	-001	3
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3771	ENSMUSGCLrsam1	227738	013415275	0055297110155		-003	3
3777	ENSMUSGCLsm12	268490	004890152	-00150668	00045	02475	3
3794	ENSMUSGCLuc7i2	192196	000844828	002460953i	01225	014	3
3800	ENSMUSGCLutzp2	233271	-02284710	-01429662	002	-001	3
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3811	ENSMUSGCLvpd1	72585	-00759591	005173479004		0235	3
3814	ENSMUSGCLypla2	26394	003993774	-01353867	-00425	01975	3
3816	ENSMUSGCLyrm1	73919	005677534	001946132	-01225	01525	3
3820	ENSMUSGCLyrm9	66274	001370728	00536223300725		01575	3
3822	ENSMUSGCLysmd2	70082	008549445	-00084778	-00675	01325	3
3824	ENSMUSGCLzic	69151	001536482	-02035352i	-003	01575	3
3826	ENSMUSGCLztr1	66863	014189064	-00249779	-01125	-00525	3
3844	ENSMUSGCMaged2	80884	-00467587	-01266320i	01775	022	3
3845	ENSMUSGCMagee1	107528	-01455942	-00579469	-001	004	3
3847	ENSMUSGCMagi1	14924	-00345395	-00502175i	0009	0065	3
3849	ENSMUSGCMagi3	99470	015994028	003432204	-00375	-00825	3
3852	ENSMUSGCMaip1	68115	-00031590	00734896i	00225	-00525	3
3872	ENSMUSGCMapi1c3b	67443	010754324	-01655394	01725	02175	3
3877	ENSMUSGCMapi2k3	26397	000896984	011385549	-00425	018	3
3881	ENSMUSGCMapi2k7	26400	001765501	-00778329i	-0165	001	3
3896	ENSMUSGCMapi4k5	399510	007909569	008818102	00275	-00225	3
3901	ENSMUSGCMapi7d2	78283	016816722	-00413008	-01	02425	3
3903	ENSMUSGCMapi1k	26413	009679213	-00187741	01625	014	3
3904	ENSMUSGCMapi10	26414	014992031	-00613240	0005	00375	3
3907	ENSMUSGCMapi1p1l	218975	010492428	-00190424	-021	011	3
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3916	ENSMUSGCMapi1kap1	227743	007128777	-01053551	-0005	0005	3
3924	ENSMUSGCMarchf5	69104	002927595	0025281280175		0095	3
3927	ENSMUSGCMarcks	17118	-00758142	008957938	-00325	0175	3
3930	ENSMUSGCMark2	13728	014381716	005075757	-01075	90771e-17	3
3942	ENSMUSGCMatzb	108645	002755505	00464752802075		0095	3
3950	ENSMUSGCMb21d2	239796	021578473	000487887	-00925	0105	3
3952	ENSMUSGCMb2d	17191	-00351188	-01525232	-0075	027	3
3963	ENSMUSGCMcat	223722	003315895	-00894455i	-00425	-002	3
3964	ENSMUSGCMccc	328949	013804814	-00277330i	0045	0175	3
3978	ENSMUSGCMcsc1	51812	005391054	-00431694	02125	785046e-1	3
3983	ENSMUSGCMcsc1	76137	-00200967	-02488526i	-007	0105	3
3986	ENSMUSGCMdga2	320772	-00425010	010864182	-00725	-00775	3
3988	ENSMUSGCMdhd2	17448	00231072c	-01924059002		00325	3
3993	ENSMUSGCMdp1	67881	-00132817	-00374318i	01075	00775	3
3994	ENSMUSGCMel1	17436	008649255	-00931914	-0075	01125	3
3999	ENSMUSGCMeak7	74347	02305418c	001928669i	01725	0115	3
4024	ENSMUSGCMegf8	269878	000208489	011424875	-0045	0125	3
4035	ENSMUSGCMetap2	56307	008919629	-00649389	0105	00025	3
4037	ENSMUSGCMetti13	71449	002221087	-00059483	-00625	-0035	3
4038	ENSMUSGCMetti14	210529	00893236	-01672721	-001	01775	3
4050	ENSMUSGCMfap3l	71306	-00822527	006227699	-01475	00525	3
4054	ENSMUSGCMfn1	67414	02281585c	001634535i	018	-002	3
4055	ENSMUSGCMfn2	170731	006020463	-01348447	00325	00475	3
4068	ENSMUSGCMgrn1	17237	010633078	-01224883	00975	-00025	3
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4087	ENSMUSGCMien1	103742	000598161	-03248391	-011	-0005	3
4091	ENSMUSGCMiga2	108958	-00215665	011311772	-0085	009	3
4092	ENSMUSGCMinar2	225583	003140242	-01305204	00775	0085	3
4113	ENSMUSGCMmaa	109136	021277153	-00688059i	-002	-0005	3
4118	ENSMUSGCMms19	72199	008736388	-00200173i	01275	-0005	3
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4121	ENSMUSGCMob1b	68473	-00579503	-00243304i	01025	00775	3
4126	ENSMUSGCMocs2	17434	008861609	-00946597i	01825	00925	3
4127	ENSMUSGCMocs3	69372	008943807	008456284	-00525	01275	3
4131	ENSMUSGCMon1b	270096	009415074	-00357076i	0115	02425	3
4136	ENSMUSGCMorn4	226123	007113404	-01592385i	-01175	029	3
4154	ENSMUSGCMprip	26936	004957289	001507776	-01525	00325	3
4157	ENSMUSGCMpv17l	93734	-00111408	-00439390	01325	0125	3
4163	ENSMUSGCMrni1	67873	-00891806	002892710	00675	00525	3
4168	ENSMUSGCMrpi10	107731	004447897	-00955141	00425	0125	3
4172	ENSMUSGCMrpi14	68463	-00076497	-03093680	0165	0005	3
4173	ENSMUSGCMrpi15	27395	002963236	-01440626i	-00375	018	3
4175	ENSMUSGCMrpi17	27397	001474868	-01638078i	-009	-00675	3
4176	ENSMUSGCMrpi18	67681	011356004	005863994	00975	004	3
4178	ENSMUSGCMrpi2	27398	-00106528	-01096462	003	02075	3
4180	ENSMUSGCMrpi21	353242	013441547	-01320550	01725	005	3
4181	ENSMUSGCMrpi22	216767	-00678388	-02717964i	01625	014	3
4182	ENSMUSGCMrpi23	19935	001387778	-01837839i	01275	0135	3
4183	ENSMUSGCMrpi24	67707	-00119178	-01025548i	-01075	01225	3
4185	ENSMUSGCMrpi28	68611	001197179	-01902485	0115	023	3
4192	ENSMUSGCMrpi37	56280	015243405	-00277691	0105	00925	3
4193	ENSMUSGCMrpi38	60441	001374501	-00984400i	-01525	01675	3
4202	ENSMUSGCMrpi46	67308	013010985	-01461089	003	01325	3
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4207	ENSMUSGCMrpi51	66493	014943995	-00873002	00725	-00025	3
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4211	ENSMUSGCMrpi57	67840	-01175729	-02606494i	-0185	01775	3
4213	ENSMUSGCMrpi9	78523	003829262	-02219836i	-01925	01025	3
4217	ENSMUSGCMrps14	64659	006753348	-01828850i	-0005	-0075	3
4229	ENSMUSGCMrps25	64658	005375745	-02376905i	-00475	019	3
4232	ENSMUSGCMrps28	66230	004353237	-00065760	0135	-00125	3
4233	ENSMUSGCMrps30	59054	018452818	004851437001		0075	3
4235	ENSMUSGCMrps34	79044	001255333	-01444148	011	01125	3
4240	ENSMUSGCMrps7	50529	002830382	-00675416i	-00625	-002	3
4241	ENSMUSGCMrps9	69527	-00244614	003600596	-00075	00475	3
4242	ENSMUSGCMrrf	67871	012104038	-00296649	-0145	00425	3
4249	ENSMUSGCMsi1	17690	-00152533	-01813938i	-0015	00625	3
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4254	ENSMUSGCMsra	110265	010736443	-01390413	00055	011	3
4255	ENSMUSGCMsrj2	76467	005044742	-02895619i	-024	013	3
4256	ENSMUSGCMstc1	229524	-00266824	-01878626i	-005	00975	3
4260	ENSMUSGCMta1	116870	004428361	-00634034	-0035	0105	3
4261	ENSMUSGCMta2	23942	005112526	00676674i	-01025	02075	3
4272	ENSMUSGCMtfr1l	76824	-00191197	-01594413i	-01325	-00775	3
4273	ENSMUSGCMtg1	212508	001170552	001043101003		021	3
4274	ENSMUSGCMthfd1	108156	013428312	-02032604005		-00325	3
4278	ENSMUSGCMtif2	76784	015011905	006735038	-00525	01175	3
4280	ENSMUSGCMtm1	17772	012346569	0072205040045		01975	3
4282	ENSMUSGCMtmr10	233315	011671033	0062994490055		0195	3
4283	ENSMUSGCMtmr12	268783	008995312	-00463480i	-00475	-0005	3
4286	ENSMUSGCMtmr3	74302	010693628	005536393	00675	014	3
4289	ENSMUSGCMtmr9	210376	010765917	-00914068i	015	01075	3
4294	ENSMUSGCMtr	238505	012754396	001869320i	01525	018	3
4295	ENSMUSGCMtres1	67851	000535627	-00638031i	-004	00175	3
4296	ENSMUSGCMtrex	72198	023471252	-00135317	00425	01625	3
4298	ENSMUSGCMtrfr	72650	022243285	-00645176i	-02025	00925	3
4300	ENSMUSGCMtss1	211401	-00919946	-01715791	-0055	-00125	3
4306	ENSMUSGCMtx3	382793	009358158	002802284003		-00775	3
4317	ENSMUSGCMycbp	56309	00548950c	006761263	-0065	0085	3



4322	ENSMUSGCMyh10	77579	-00379861-00240848	-01525	0055	3
4325	ENSMUSGCMyh9	17886	010392987009612047	-01675	013	3
4334	ENSMUSGCMyo16	244281	003995942011259284	00015	0205	3
4335	ENSMUSGCMyo18a	360013	013208722000743262	-01675	-0035	3
4341	ENSMUSGCMyo5a	17918	003954069010246788	00055	-0015	3
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4384	ENSMUSGNaapl11	53605	004686011-00862940	-0005	-00575	3
4398	ENSMUSGNar2	17961	018096181005181244	-0195	0055	3
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4824	ENSMUSGNelfosbpl7	71240	-0017181801961629	-0105	01225	3
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5673	ENSMUSGCPts	19286	001302683-01233619	01125	-00025	3
5676	ENSMUSGCPum1	80912	010335938-00079172-003		-00875	3



5679	ENSMUSGcPura	19290	-00117131	-01302852	-00525	-01075	3
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5686	ENSMUSGcPwp1	103136	007598552	-00573364	-02075	0015	3
5689	ENSMUSGcPxdn	69675	004757425	007649901	00625	-008	3
5696	ENSMUSGcPycr2	69051	002710757	-01287238	-00075	01475	3
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5703	ENSMUSGcPyroxd1	232491	002372974	-00441179	-0115	00225	3
5708	ENSMUSGcQiki	19317	00254724C	000989943	00725	0095	3
5711	ENSMUSGcQrich1	69232	005332301	-00665697	00075	01575	3
5715	ENSMUSGcQtrt1	60507	-00513924	-00833203	-00175	016	3
5717	ENSMUSGcR3hcc1	71843	-00144512	-01580666	-01625	026	3
5718	ENSMUSGcR3hdm1	226412	006601271	-01476752	01275	0015	3
5732	ENSMUSGcRab1b	76308	007419454	-01427756	-0045	01	3
5734	ENSMUSGcRab22a	19334	013441175	002052583	00025	00975	3
5736	ENSMUSGcRab24	19335	001745603	-001574640	01075	002	3
5745	ENSMUSGcRab31	106572	007655527	-02163812	000025	029	3
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5749	ENSMUSGcRab35	77407	007506501	-00996954	-00125	-012	3
5769	ENSMUSGcRab6a	19346	-00243032	-01471517	01725	-00275	3
5770	ENSMUSGcRab6b	270192	015501803	-00539165	01725	015	3
5775	ENSMUSGcRabep1	54189	015223391	-00542450	-00875	01825	3
5778	ENSMUSGcRabgap1	227800	012595800	001590101	01375	01675	3
5779	ENSMUSGcRabgap1l	29809	-00175911	002274384	01575	0075	3
5780	ENSMUSGcRabgef1	56715	-00141158	-00950767	01975	-0015	3
5781	ENSMUSGcRabgta	56187	003951195	-00497618	-003	005	3
5786	ENSMUSGcRab16	227624	020065305	005714746	-00925	-007	3
5787	ENSMUSGcRac1	19353	001220982	-01305983	-01075	-00075	3
5792	ENSMUSGcRad23a	19358	008921936	-00018655	01125	-00475	3
5800	ENSMUSGcRala	56044	007827875	-01200019	-00275	0245	3
5801	ENSMUSGcRalb	64143	-00500643	002500905	-0135	00375	3
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5813	ENSMUSGcRanbp10	74334	008306332	010383715	02025	0065	3
5827	ENSMUSGcRap2c	72065	004376844	005761902	00525	024	3
5835	ENSMUSGcRaph1	77300	002795474	008556545	-00475	0075	3
5844	ENSMUSGcRasgef1a	70727	011030026	001065070	00725	-00575	3
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5860	ENSMUSGcRbck1	24105	005465558	001654834	01075	013	3
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5873	ENSMUSGcRbm17	76938	001316085	-00284980	00005	00075	3
5893	ENSMUSGcRbsn	78287	015348413	-00528422	-0115	00625	3
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5908	ENSMUSGcRcor1	217864	008974925	004510985	00075	002	3
5921	ENSMUSGcRela	19697	-00443620	-00266022	00375	003	3
5922	ENSMUSGcRelch	227446	003896622	009911567	01115	008	3
5949	ENSMUSGcRgl1	19731	010499007	-00344831	10095	-005	3
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5970	ENSMUSGcRheb	19744	005382901	-01202891	01625	007	3
5972	ENSMUSGcRhob	11852	000255643	-01055519	01825	01725	3
5979	ENSMUSGcRhot2	214952	005716057	-00798277	00775	01625	3
5986	ENSMUSGcRictor	78757	-01017460	015001296	-0035	018	3
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6027	ENSMUSGcRnf114	81018	009754195	-00147039	-0135	0155	3
6030	ENSMUSGcRnf123	84585	008190125	008663110	-01	-0045	3
6039	ENSMUSGcRnf157	217340	013612997	004722006	00005	-0005	3
6047	ENSMUSGcRnf214	235315	008062892	-00293604	-00275	-006	3
6050	ENSMUSGcRnf25	57751	007246884	-00836332	-0175	-0005	3
6052	ENSMUSGcRnf31	268749	004832266	002066838	00055	008	3
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6074	ENSMUSGcRpa3	68240	-01125723	001646535	-00275	01	3
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6085	ENSMUSGcRpl11	67025	009009524	-01251523	02025	014	3
6100	ENSMUSGcRpl24	68193	-00606955	-01155048	0009	025	3
6105	ENSMUSGcRpl29	19944	008092735	-01410056	013	0115	3
6120	ENSMUSGcRpl5	1.01E+08	005761755	-01641988	0195	01125	3
6124	ENSMUSGcRpl8	26961	00763130C	-01270510	0195	0215	3
6131	ENSMUSGcRpp14	67053	022758791	002753117	-0225	00575	3
6134	ENSMUSGcRppr1a	225283	007415444	-00297638	-02025	012	3
6150	ENSMUSGcRps21	66481	021712007	-00135498	0002	02575	3
6165	ENSMUSGcRps6ka3	110651	009137322	002660760	000625	0225	3
6169	ENSMUSGcRps6kc1	320119	027581275	-00411640	-00775	004	3
6170	ENSMUSGcRps7	20115	008597645	-01064591	0022	0025	3
6174	ENSMUSGcRptor	74370	003578212	-00060900	-012	-00675	3
6178	ENSMUSGcRragb	245670	012290901	005860993	-00275	00525	3
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6188	ENSMUSGcRrp15	67223	005839801	-00737152	-004	-01125	3
6194	ENSMUSGcRspry1	67610	001979608	006685273	000775	01175	3
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6202	ENSMUSGcRtl8b	553127	-00203060	-02325770	00425	02875	3
6216	ENSMUSGcRundc1	217201	-0193617	-00511673	-005	-00425	3
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6230	ENSMUSGcS100a10	20194	019372602	-02791128	-0065	-01075	3
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6235	ENSMUSGcS100a6	20200	-01071135	-02137311	-01275	01025	3
6254	ENSMUSGcSamhd1	56045	-01497652	-00752663	-01675	0135	3
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6311	ENSMUSGcSco1	52892	-00189888	002228576	-01125	022	3
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6352	ENSMUSGcSec16a	227648	004010176	003940274	-0035	02	3
6353	ENSMUSGcSec22b	20333	009583893	-02042964	01025	-00225	3
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6356	ENSMUSGcSec23ip	207352	019034105	005605463	-0025	0155	3
6357	ENSMUSGcSec24a	77371	002244713	005022448	0001	0125	3
6393	ENSMUSGcSema6d	214968	-01659288	-00051351	-019	00375	3
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6415	ENSMUSGcSergef	27414	006342666	-01079258	0006	-0015	3
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6801	ENSMUSGcSnf8	27681	-00120863-01757586-0115	001	3
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6814	ENSMUSGcSnrcp	20630	-00273306-01788853-00025	01875	3
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6836	ENSMUSGcSnx18	170625	-00935582-00472489-00025	02475	3
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6845	ENSMUSGcSnx30	209131	-00514944-00728025-0015	-01075	3
6850	ENSMUSGcSnx6	72183	013623111-00322247-00925	014	3
6859	ENSMUSGcSorbs1	20411	024089677-01212384-01175	0035	3
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6900	ENSMUSGcSphk2	56632	00780847C-02248293-01225	0015	3
6904	ENSMUSGcSpire2	234857	00727793C008355882-00025	0175	3
6914	ENSMUSGcSpr	20751	010233123-01806677003	-007	3
6936	ENSMUSGcSrcin1	56013	010256275-00246343-019	00475	3
6940	ENSMUSGcSrgap1	117600	-01713309-00871297-0055	02	3
6948	ENSMUSGcSrip19	66384	004516355-00085826-001	02525	3
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6951	ENSMUSGcSrp2	20817	002661361-00375459-00025	02	3
6954	ENSMUSGcSrr	27364	006702887-01381181-002	-0085	3
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7009	ENSMUSGcStat1	20846	-01649005-01612192-0075	-00275	3
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7023	ENSMUSGcStk11	20869	009753943-00610121-01575	00875	3
7027	ENSMUSGcStk25	59041	017712239003178433-018	014	3
7036	ENSMUSGcStmn2	20257	-00330371-01409992-981308e-1008	3	
7045	ENSMUSGcStradb	227154	003919295004467423-01525	022	3
7055	ENSMUSGcStub1	56424	-00030856-01190575-00475	021	3
7060	ENSMUSGcStx18	71116	0128544570019559280125	01475	3
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7084	ENSMUSGcSugt1	67955	00450075C-00234068-008	009	3
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7106	ENSMUSGcSvbp	69216	034547207-0197292000175	0165	3
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7120	ENSMUSGcSyncrip	56403	000772494001263004-012	01525	3
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7158	ENSMUSGcTab1	66513	-00712227-00676299-018	004	3
7160	ENSMUSGcTab3	66724	00617792C00589089402125	00675	3
7163	ENSMUSGcTaco1	70207	023597372-00237645004	-007	3
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7271	ENSMUSGcTecpr1	70381	0129944050066120290025	-00075	3
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7276	ENSMUSGcTelo2	71718	026117156-00044863-0025	00525	3
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7329	ENSMUSGcThtpa	105663	020358678-00165448-01875	01325	3
7338	ENSMUSGcTigar	319801	007328125-0069764500625	0165	3
7340	ENSMUSGcTimm10b	14356	-00292854-001928716006	-00025	3
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7345	ENSMUSGcTimm22	56322	-00458125-00544344-0055	0245	3
7346	ENSMUSGcTimm23	53600	-00194241-01681239-00725	02125	3
7349	ENSMUSGcTimm50	66525	-00988644-01563395-00975	025	3
7356	ENSMUSGcTipl1	226591	005824483-00668621-588785e-1	018	3
7359	ENSMUSGcTk2	57813	009389187-0063314500925	-0035	3
7360	ENSMUSGcTkfc	225913	008256347-00823942016	008	3
7363	ENSMUSGcTlcd3b	68952	009163461-00564313-004	00425	3
7367	ENSMUSGcTle4	21888	-00680717-0048060000875	013	3
7383	ENSMUSGcTmcc3	319880	-00587398-00906487-0195	0155	3
7404	ENSMUSGcTmem126a	66271	-00378298-01275009014	024	3
7415	ENSMUSGcTmem141	51875	014361304-01198845-00175	-00425	3
7439	ENSMUSGcTmem198	319998	-01218343-00392587601	0075	3
7464	ENSMUSGcTmem266	244886	-00629228-000749757-0115	-00225	3



7491	ENSMUSGCTmf1	232286	011046844006384057002	-005	3
7501	ENSMUSGCTmub1	64295	-02082748 010148857-0135	01125	3
7509	ENSMUSGCTnfaiP8	106869	-00956360-02528409-001	014	3
7513	ENSMUSGCTnlp1	57783	005854663-01144499-00675	00825	3
7526	ENSMUSGCTns3	319939	021138772-00637056-007	00725	3
7529	ENSMUSGCTollip	54473	011217813-01144751-001	-006	3
7530	ENSMUSGCTom1	21968	002375922-01955308-00375	0215	3
7532	ENSMUSGCTom1l2	216810	013056705-01096222-01375	-00075	3
7534	ENSMUSGCTomm22	223696	-00065947-01555833-00775	02525	3
7535	ENSMUSGCTomm34	67145	00687142C-0120860901275	01825	3
7571	ENSMUSGCTprg1l	67808	008717503-0140113401125	00475	3
7572	ENSMUSGCTprkb	69786	008275903-04629446-02125	-196262e-1	3
7583	ENSMUSGCTraf01	231712	00574662300918003100225	01225	3
7589	ENSMUSGCTrappc12	245828	-01301894-03383223002	-00225	3
7592	ENSMUSGCTrappc12	217448	010902175-01016179-005	014	3
7594	ENSMUSGCTrappc14	231807	011228166005385051-01375	01925	3
7596	ENSMUSGCTrappc2l	59005	-00894810-01933079-004	02075	3
7597	ENSMUSGCTrappc3	27096	-00279270-00613381-01825	014	3
7599	ENSMUSGCTrappc5	66682	-01541976-00805131012	0095	3
7601	ENSMUSGCTrappc8	75964	012841095004284565-0115	-004	3
7602	ENSMUSGCTrappc9	76510	008232145-0156602800725	005	3
7608	ENSMUSGCTrim2	80890	005247444-0075894600325	00125	3
7613	ENSMUSGCTrim28	21849	012299775-00227413-0035	-006	3
7614	ENSMUSGCTrim3	55992	000972035-00684669-0085	015	3
7636	ENSMUSGCTrmt10c	52575	-01692700-000866162-004	01325	3
7637	ENSMUSGCTrmt11	73681	-00847135-01458147-01575	01725	3
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7666	ENSMUSGCTsg101	22088	006665678-00557329-00325	0255	3
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7683	ENSMUSGCTspan9	109246	-02864848-02916763-011	-0015	3
7686	ENSMUSGCTspyl4	72480	018407215-01099560-0225	0015	3
7687	ENSMUSGCTspyl5	239364	022060656-00892632-0095	02575	3
7688	ENSMUSGCTsr2	69499	002662828-01036636-00525	00325	3
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7726	ENSMUSGCTuba4a	22145	006422404-02757941-0155	0205	3
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7765	ENSMUSGCTxnrD1	50493	006752546-02357323-0005	022	3
7766	ENSMUSGCTxnrD2	26462	005163698-02609390-0015	-0085	3
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7778	ENSMUSGCUap1l1	227620	013887695-00044905-00875	-00375	3
7779	ENSMUSGCUba1	22201	009550242-01032363-01675	-00425	3
7782	ENSMUSGCUba5	66663	007946247-01773853-00975	01275	3
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7800	ENSMUSGCUbe2h	22214	003419217-0075780900825	0155	3
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7805	ENSMUSGCUbe2l3	22195	00546385C-02290874-00475	-0055	3
7808	ENSMUSGCUbe2o	217342	005583722-00317063003	01925	3
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7816	ENSMUSGCUbe2z	268470	008937886-0107624100575	0095	3
7821	ENSMUSGCUbe4b	63958	003308872-00229111-0105	0055	3
7827	ENSMUSGCUbi7	69459	006310986-01904179-0195	01775	3
7831	ENSMUSGCUbqln1	56085	004238921-01106792-00675	-0025	3
7833	ENSMUSGCUbqln4	94232	014162903-00645017-0035	-0035	3
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7840	ENSMUSGCUbtD2	327900	010536476007837833012	00975	3
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7846	ENSMUSGCUbwn6	66530	008443969-00741437001	0185	3
7848	ENSMUSGCUchl1	22223	-00020190-01342907-00375	02025	3
7849	ENSMUSGCUchl3	50933	01105746900080785701475	0085	3
7852	ENSMUSGCUckl1	68556	00424198801122415302025	001	3
7857	ENSMUSGCUfd1	22230	009010304-00082328-01325	009	3
7859	ENSMUSGCUfm1	67890	-00118633-01452217-0035	022	3
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7874	ENSMUSGCUhnc119b	106840	012309455-00849474-011	-00725	3
7888	ENSMUSGCUpf1	19704	010943362-00186421-01625	00725	3
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7894	ENSMUSGCUqcc2	67267	-00275402-03432311-0045	00275	3
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7908	ENSMUSGCUrm1	68205	354e-05-01966424-00825	-005	3
7909	ENSMUSGCUrod	22275	015184669-00418172-011	013	3
7914	ENSMUSGCUsf2	22282	012464114-00081466-0155	024	3
7915	ENSMUSGCUso1	56041	000022252-01027534017	01625	3
7916	ENSMUSGCUsp10	22224	01584197C007410324-0165	019	3
7917	ENSMUSGCUsp11	236733	010201743-01098818-0085	013	3
7919	ENSMUSGCUsp13	72607	01176535700761049801825	0125	3
7920	ENSMUSGCUsp14	59025	-00040403-00604968-00825	0255	3
7925	ENSMUSGCUsp24	329908	00182300500212714901775	00275	3
7931	ENSMUSGCUsp34	17847	00777972C00593612400475	00675	3
7935	ENSMUSGCUsp4	22258	008220866-00851420-00775	-00025	3
7939	ENSMUSGCUsp47	74996	019201843000383053-0025	022	3
7941	ENSMUSGCUsp5	22225	010235156-00975634-01325	-00025	3
7946	ENSMUSGCUsp8	84092	008411901-01141568-015	029	3
7947	ENSMUSGCUsp9x	22284	0170390060025172270185	004	3
7968	ENSMUSGCVapb	56491	002006269-01654847-01	01325	3
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7979	ENSMUSGCVbp1	22327	-00826640-007003395-0005	00175	3
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8088	ENSMUSGcWdr35	74682	008790726	-01149778002	0035	3	
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8099	ENSMUSGcWdr5	140858	005287896	-0115270000625	02625	3	
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8103	ENSMUSGcWdr7	104082	007697030	-00105057	0025	00025	3
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8105	ENSMUSGcWdr75	73674	011430495	-00135684	-01825	00025	3
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8219	ENSMUSGcZc3rb1	67197	-00131220	00785613501175	001225	01225	3
8232	ENSMUSGcZeb1	21417	-00218687	-02147096	01375	003	3
8234	ENSMUSGcZer1	227693	022642119	00311526400775	003	003	3
8255	ENSMUSGcZfpl1	81909	-00634976	00071428300675	0035	0035	3
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1021	ENSMUSGcCc2d2a	231214	-01250533	-01313596	-22275	-10075	4
1180	ENSMUSGcCenpa	12615	007443373	024349858	-05525	-20775	4
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1560	ENSMUSGcCryab	12955	-00014402	-02797423	-0585	-14425	4
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3153	ENSMUSGcHpi1bp3	15441	-00212468	-00547775	-17675	-137	4
3395	ENSMUSGcItpr1	16438	-00635925	012488281	-10525	-129	4
3613	ENSMUSGcLamt0r4	66096	002804363	-02651511	-03875	-15325	4
3762	ENSMUSGcLrrc9	78257	-00079973	-00751819	-05575	-12475	4
3842	ENSMUSGcMag	17136	-06278886	010399009	-17575	-125	4
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3984	ENSMUSGcMdc1	240087	004819836	020092041	-097	-1595	4
4552	ENSMUSGcNgp	18054	-14390945	010339963	-246	-24125	4
4725	ENSMUSGcNudt13	67725	002405540	-00552949	-15725	-13575	4
4735	ENSMUSGcNudt3	56409	005448825	-01190823	-05	-17975	4
4860	ENSMUSGcPacsin2	23970	003664486	-01143219	-0615	-13775	4
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5661	ENSMUSGcPtpm	19274	-06215353	019978377	-16875	-09675	4
5726	ENSMUSGcRab12	19328	-05794173	-10866599	-2015	-22775	4
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6376	ENSMUSGcSelenon	74777	-02593586	012406844	-0315	-15225	4
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6568	ENSMUSGcSic17a8	216227	-08900080	004056108	-00975	-208	4
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6907	ENSMUSGcSpock1	20745	-06116232	003310930	-0525	-112	4
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85	ENSMUSGcAbrac1	73112	014064310	028527215032	00325	-03825	5
89	ENSMUSGcAcaa2	52538	001928370	-02373771	-0035	-0315	5
92	ENSMUSGcAcad12	338350	001860854	-01926655	01075	-034	5
93	ENSMUSGcAcad8	66948	-00067693	-01732583	-00025	-0145	5
95	ENSMUSGcAcad1	11363	012153148	-01085159	017	-0105	5
96	ENSMUSGcAcadm	11364	010652181	-01096582	0004	-00975	5
99	ENSMUSGcAcadv1	11370	018211454	-01296629	-00125	-01575	5
115	ENSMUSGcAcot1	26897	015989628	-03590099	0023	-027	5
118	ENSMUSGcAcot2	171210	002401217	-03490175	019	-02225	5
121	ENSMUSGcAcot9	56360	001915735	-03610759	0135	-03375	5
135	ENSMUSGcAcss1	68738	017367845	-01580068	01725	-02275	5
136	ENSMUSGcAcss2	60525	008762020	-01490731	000125	-015	5
137	ENSMUSGcActb	11461	-00791825	-02379057	01675	-009	5
147	ENSMUSGcActr2	66713	001688076	-00571651	02025	-0155	5
148	ENSMUSGcActr3	74117	004127998	-00448644	0135	-04225	5
149	ENSMUSGcAdarb3b	242894	009088763	-00282322	011	-0195	5
168	ENSMUSGcAdap1	231821	015436243	-00066173	0025	-02675	5
170	ENSMUSGcAdarb1	110532	000934098	-00734260	01675	-03825	5
184	ENSMUSGcAdd1	11518	010160587	-01341485	00825	-02275	5
185	ENSMUSGcAdd2	11519	014260477	008138968	-588785e-1	-02475	5
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222	ENSMUSGcAfp112	226250	-00090600	-00023172	0095	-0295	5
223	ENSMUSGcAfg11	215951	015963110	-01232589	023	-03	5
225	ENSMUSGcAfgi4	78933	050546285	-00532598	0495	-03275	5
237	ENSMUSGcAgl	77559	005831292	-02827396	04025	-022	5
250	ENSMUSGcAhecy	269378	001034244	-00648183	002	-012	5
251	ENSMUSGcAhecy1	229709	007737008	-02630282	0175	-00575	5
258	ENSMUSGcAhsa2	268390	010589143	007635144	01725	-00575	5
261	ENSMUSGcAifm1	26926	007903722	-00516223	000375	-014	5
272	ENSMUSGcAk3	56248	015766988	-00373940	-00475	-02125	5
276	ENSMUSGcAkap10	56697	006337456	004891795	01225	-0325	5
287	ENSMUSGcAkr1b1	11677	-00049592	-02157120	01225	-0105	5
298	ENSMUSGcAldh1a1	11668	033894780	-01935328	014	-01375	5
302	ENSMUSGcAldh11i	107747	009374844	-02438617	003	-01075	5
305	ENSMUSGcAldh3a2	11671	007363556	-01693669	00025	-02175	5
308	ENSMUSGcAldh5a1	214579	009657983	-01446554	0005	-0485	5
309	ENSMUSGcAldh6a1	104776	013232628	-00489646	000375	-0265	5
310	ENSMUSGcAldh7a1	110695	012673786	-01665121	01575	-02875	5
352	ENSMUSGcAnapc4	52206	014954470	002819608	0004	-0285	5
365	ENSMUSGcAnkmy2	217473	-00274596	-02053022	0109	-0065	5
367	ENSMUSGcAnkrd13c	433667	002969923	-00782426	025	-02825	5
380	ENSMUSGcAnkrd49	56503	004313158	005816465	000125	-02625	5
405	ENSMUSGcAnxa5	11747	002625258	-02062425	0005	-03	5
410	ENSMUSGcAp1b1	11764	016832043	005785036	0085	-0155	5



411	ENSMUSGcAp1g1	11765	0180707440019737480155	-00475	5
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415	ENSMUSGcAp2a1	11771	012137313-00795498 028	-027	5
416	ENSMUSGcAp2a2	11772	018694824-01026186022	-029	5
417	ENSMUSGcAp2b1	71770	015870312-0142186403975	-01075	5
422	ENSMUSGcAp3d1	11776	025879533-0068540801115	-04425	5
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426	ENSMUSGcAp3s2	11778	00829252c00023989500825	-017	5
428	ENSMUSGcAp4e1	108011	-00065421 006989645012	-009	5
457	ENSMUSGcApoo	68316	-00519468 -02875849-00275	-031	5
475	ENSMUSGcArf1	11840	-00116044 -00832777009	-01775	5
476	ENSMUSGcArf2	11841	-00259384 -01151982-0025	-02975	5
479	ENSMUSGcArf6	11845	0046817520056718830005	-0155	5
480	ENSMUSGcArfgap1	228998	-00893355 -00964602-0005	-0345	5
488	ENSMUSGcArfrp1	76588	000797005-00854562034	-011	5
491	ENSMUSGcArhgap1	228359	012488874-01035248 00275	-021	5
493	ENSMUSGcArhgap12	75415	016294236-0090337502725	-02775	5
510	ENSMUSGcArhgap5	11855	00529743c-00838279-01525	-017	5
541	ENSMUSGcAr15	218639	001813893-0037514 002	-0415	5
542	ENSMUSGcAr12	56327	-00353077 -017816370255	-021	5
546	ENSMUSGcAr15a	75423	0066800180036002200725	-0115	5
547	ENSMUSGcAr16	56297	-00035103-00827921 03675	-02175	5
552	ENSMUSGcAr18a	68724	-00480061 -00319692 0485	-035	5
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562	ENSMUSGcArmh3	71617	-00624818 -00566508 02175	-021	5
567	ENSMUSGcArpc2	76709	007389867-0070991802125	-01825	5
570	ENSMUSGcArpc5	67771	-00375485 -0087420901825	-008	5
571	ENSMUSGcArpc5l	74192	000044195-0126926900275	-0365	5
572	ENSMUSGcArpin	70420	006305567-002614910005	-01225	5
575	ENSMUSGcArrb1	109689	014514792-00678635003	-019	5
598	ENSMUSGcAsic2	11418	0066541160359595820315	-02475	5
626	ENSMUSGcAtg3	67841	011237305-0015376701975	-01275	5
629	ENSMUSGcAtg5	11793	017479764-00170519 0075	-04575	5
630	ENSMUSGcAtg7	74244	00096485c-01871434-00175	-01625	5
640	ENSMUSGcAtp13a1	170759	-00609830017121304402875	-01075	5
663	ENSMUSGcAtp5me	11958	002553362-02515426 02175	-0405	5
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712	ENSMUSGcAxl	26362	-00138053 00142863400425	-05075	5
718	ENSMUSGcB3gat3	72727	001079399-0029503701925	-015	5
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749	ENSMUSGcBbs4	102774	000726507-02251787 037	-00975	5
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780	ENSMUSGcBbdh1	71911	007184727-001442820195	-0045	5
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827	ENSMUSGcBorcs8	72368	-00083162 -0155726101	-02775	5
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829	ENSMUSGcBphi	68021	002665773-03228272-012	-054	5
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890	ENSMUSGcCab39	12283	007135867-00250911 011	-023	5
918	ENSMUSGcCactin	70312	00726897700552592201125	-03125	5
920	ENSMUSGcCacybp	12301	0054008240037484100165	-02275	5
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929	ENSMUSGcCalb2	12308	-01641415 -00587921 02225	-0275	5
950	ENSMUSGcCamkv	235604	020466148-0000750302375	-003	5
960	ENSMUSGcCap1	12331	023877648-02017715 0125	-02775	5
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971	ENSMUSGcCapza2	12343	008405121-0081538704025	-0295	5
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977	ENSMUSGcCarmil2	234695	008837117-00978707 00275	-03475	5
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1014	ENSMUSGcCbx1	12412	007364042-00106059026	-01825	5
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1747	ENSMUSGcDcctn2	69654	006732062	-01684596015	-04075	5	
1753	ENSMUSGcDcun1d1	114893	009615713	-00006220	00225	-02625	5
1754	ENSMUSGcDcun1d2	102323	017772537	0039404490045	-0425	5	
1761	ENSMUSGcDdah1	69219	000939325	-037853950005	-03025	5	
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1845	ENSMUSGcDhfr	13361	012295497	-0050638801175	-0115	5	
1855	ENSMUSGcDhix15	13204	000562738	014036171	-00075	-01475	5
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1866	ENSMUSGcDihbio	66593	004382737	01748502400325	-0445	5	
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1934	ENSMUSGcDnajt24	99349	014662468	-03078930005	-03025	5	
1952	ENSMUSGcDnm3	103967	008058517	00147904800275	-032	5	
1966	ENSMUSGcDock3	208869	-00310583	-000078040145	-01125	5	
1967	ENSMUSGcDock4	238130	000795158	01355098001975	-01025	5	
1973	ENSMUSGcDok4	114255	003646208	00674242903025	-00725	5	
1986	ENSMUSGcDph5	69740	004116801	-00659629	017	-01275	5
1997	ENSMUSGcDpp9	224897	01627461C	003402999016	-0415	5	
2015	ENSMUSGcDst	13518	-01416738	00570288303075	-0345	5	
2027	ENSMUSGcDusp14	56405	-00668532	-0089717501	-0205	5	
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2050	ENSMUSGcDynll1	56455	007232523	-01176077006	-0195	5	
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2070	ENSMUSGcEch1	51798	003695278	-01755020	-0025	-019	5
2071	ENSMUSGcEchdc1	52665	01164405C	-0243781901375	-02925	5	
2074	ENSMUSGcEcl1	13177	01381753C	-01685071	0205	-03175	5
2075	ENSMUSGcEcl2	23986	006677252	-01344010	01925	-0105	5
2088	ENSMUSGcEef1a2	13628	01270353C	-00960760	02375	-0305	5
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2097	ENSMUSGcEfcab14	230648	-01109032	-000095900225	-0305	5	
2108	ENSMUSGcEfc3b	668212	018707035	-001106300925	-0335	5	
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2118	ENSMUSGcEhd3	57440	012022438	-00244282025	-0355	5	
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2125	ENSMUSGcEif1	20918	00482453C	-0138603703825	-01725	5	
2133	ENSMUSGcEif2b1	209354	010181388	-00754485002	-0175	5	
2145	ENSMUSGcEif3c	56347	011003185	-01838919	0285	-007	5
2157	ENSMUSGcEif4a2	13682	003037655	-00284874	022	-00375	5
2174	ENSMUSGcElac1	114615	-00634824	-00133382	00275	-016	5
2179	ENSMUSGcElav12	15569	-00730255	-00521535	04075	-031	5
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2185	ENSMUSGcElmo2	140579	011592046	-0157051000975	-00725	5	
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2222	ENSMUSGcEnc1	13803	016874843	-0101635202275	-00475	5	
2250	ENSMUSGcEpb4111	13821	019107774	00109357810105	-013	5	
2254	ENSMUSGcEpb4115	226352	013957052	00041359601475	-00875	5	
2277	ENSMUSGcEps15	13858	-00422023	-01113218	-00025	-02325	5
2279	ENSMUSGcEps8	13860	008686697	-0102416300225	-01325	5	
2287	ENSMUSGcErc2	238988	-00270606	00513020200875	-03175	5	
2308	ENSMUSGcEsd	13885	000717263	-02418511	-001	-0395	5
2312	ENSMUSGcEtf1	225363	005885164	001368952022	-002	5	
2318	ENSMUSGcEtnk1	75320	000548845	00541572700475	-0355	5	
2329	ENSMUSGcExoc3	211446	019425106	-01191623	00375	-0145	5
2330	ENSMUSGcExoc4	20336	005452908	-02420428	019	-01475	5
2331	ENSMUSGcExoc5	105504	005664864	0086201590215	-01175	5	
2339	ENSMUSGcExosc2	227715	003165586	-01385904	02525	-02325	5
2344	ENSMUSGcExosc8	69639	000079815	-00160461	00825	-03575	5
2359	ENSMUSGcFahp5	16592	011924766	-01240675	0395	-0265	5
2370	ENSMUSGcFahd2a	68126	-00691844	-02346416	00775	-0235	5
2392	ENSMUSGcFam163b	109349	-01029557	00120597002575	-0045	5	
2402	ENSMUSGcFam20b	215015	-00477122	00882923901925	-0085	5	
2422	ENSMUSGcFarp1	223254	014375481	-00227980	0325	-02075	5
2423	ENSMUSGcFarp2	227377	01007209501	716718302425	-042	5	
2435	ENSMUSGcFbl	14113	015381451	-00555452	01075	-0505	5
2436	ENSMUSGcFbl1	237730	-00480957	-02415296	008	-01925	5
2442	ENSMUSGcFbx116	214931	007778116	00773026801775	-02175	5	
2450	ENSMUSGcFbxo2	230904	017287501	-01454892012	-03775	5	
2451	ENSMUSGcFbxo21	231670	011118345	-00386307	01025	-03025	5
2453	ENSMUSGcFbxo3	57443	014176604	0020567550165	-028	5	
2460	ENSMUSGcFbxo44	230903	00912184C	-00738777	043	-02225	5
2487	ENSMUSGcFerm12	218952	006346755	-0221786701	-0115	5	
2492	ENSMUSGcFgd4	224014	004304725	-0036625901425	-00475	5	
2493	ENSMUSGcFgd6	13998	024256248	-01459269	00475	-01425	5
2494	ENSMUSGcFgf1	14164	003710486	-02774168	-00075	-03625	5
2496	ENSMUSGcFgf13	14168	010048324	-00568961	02275	-009	5
2501	ENSMUSGcFgfr3	14184	004083874	02899516900725	-03075	5	



2506	ENSMUSGcFhip2	239170	016394357	00745237900075	-024	5	
2507	ENSMUSGcFhit	14198	012004723	-00992542	-027	5	
2513	ENSMUSGcFibp	58249	003039256	003153015	-03725	5	
2514	ENSMUSGcFig4	103199	00901710C	00194489801975	-0075	5	
2522	ENSMUSGcFkbp2	14227	-01969269	-00987519	-0325	5	
2523	ENSMUSGcFkbp3	30795	004796623	-00231460365	-012	5	
2524	ENSMUSGcFkbp4	14228	020303277	004112735	-00175	5	
2526	ENSMUSGcFkbp8	14232	002598184	-01425011	-039	5	
2529	ENSMUSGcFlad1	319945	008846876	-00097742	0035	-012	5
2542	ENSMUSGcFmn1	14260	007786611	018505563	0005	-02475	5
2545	ENSMUSGcFmm12	71409	002710727	-00780311	-00275	5	
2557	ENSMUSGcFndc3b	72007	025937777	013330562022	-054	5	
2559	ENSMUSGcFnta	14272	014239587	-01302154	01575	-0125	5
2560	ENSMUSGcFntb	110606	004141667	-01056917	04025	-05275	5
2562	ENSMUSGcFolh1	53320	01009658	012537653	00375	-0375	5
2574	ENSMUSGcFrm43	242506	-02459966	-02442989	030225	-01875	5
2581	ENSMUSGcFrm4pd4	333605	007421452	013549584	00875	-01425	5
2584	ENSMUSGcFrs3	107971	003852344	-00331503	-00625	-0345	5
2591	ENSMUSGcFth1	14319	012571481	-01459466	-024	-00675	5
2643	ENSMUSGcGad1	14415	-01081803	-01245953	0003	-0165	5
2648	ENSMUSGcGalc	14420	-00086836	009392802	01775	-00525	5
2649	ENSMUSGcGale	74246	00349119	012656782	00975	-0245	5
2666	ENSMUSGcGapdh	14433	008304835	-01985869	01325	-01625	5
2674	ENSMUSGcGas2	14453	-01699634	-01398937	017029	-051	5
2676	ENSMUSGcGas6	14456	-00833762	014304506	0175	-0235	5
2697	ENSMUSGcGcdh	270076	016376842	-00373555	025	-0085	5
2708	ENSMUSGcGdi2	14569	007370177	-00731701	01825	-00475	5
2710	ENSMUSGcGdpd2	71584	028607724	004213738	00725	-03075	5
2717	ENSMUSGcGet3	56495	-00207291	-02567680	01475	-0155	5
2721	ENSMUSGcGfm1	28030	01145050C	-01670149	0008	-02925	5
2722	ENSMUSGcGfm2	320806	012962035	-00327504	-0145	-00525	5
2728	ENSMUSGcGfus	22122	003839492	-00494348	-157009e-1	-05025	5
2735	ENSMUSGcGgps1	14593	004948722	009351395	-00075	-01725	5
2755	ENSMUSGcGk	14933	010636603	-00390803	0115	-00825	5
2763	ENSMUSGcGle1	74412	008368762	-00211475	02325	-03125	5
2765	ENSMUSGcGli1p2	384009	025788206	-03958477	02575	-031	5
2767	ENSMUSGcGlo1	109801	005247838	-02109024	000875	-013	5
2768	ENSMUSGcGlod4	67201	007807934	-00935487	03125	-05725	5
2775	ENSMUSGcGls	14660	016427386	004981015	01325	-01275	5
2777	ENSMUSGcGltp	56356	-00015673	-02009340	002	-035	5
2778	ENSMUSGcGlud1	14661	011158501	-01507881	01525	-00675	5
2779	ENSMUSGcGlutk	14645	024803668	-00736966	02	-00175	5
2780	ENSMUSGcGlyctk	235582	-00924358	-03520756	0225	-048	5
2786	ENSMUSGcGm21992	1.03E+08	014045918	011602005	00775	-0235	5
2799	ENSMUSGcGna13	14674	017203127	-00422730	01625	-01975	5
2801	ENSMUSGcGna12	14678	-00602299	-01565996	02225	-0385	5
2802	ENSMUSGcGna13	14679	-00025136	-00393652	02085	-01375	5
2805	ENSMUSGcGnaq	14682	017276648	00051515	031575	-016	5
2806	ENSMUSGcGnas	14683	004487794	-01329200	0275	-01325	5
2807	ENSMUSGcGnaz	14687	01425723C	00608251	072525	-02925	5
2816	ENSMUSGcGng13	64337	003486945	-02997568	0035	-036	5
2817	ENSMUSGcGng2	14702	002022471	-00863664	01425	-03525	5
2820	ENSMUSGcGng5	14707	011136396	-01256599	01225	-012	5
2827	ENSMUSGcGnpda2	67980	-00154865	-00873680	0215	-02025	5
2828	ENSMUSGcGnpnat1	54342	-01175219	-00340509	-001	-03475	5
2829	ENSMUSGcGnptg	214505	-01323135	-00396073	0245	-029	5
2850	ENSMUSGcGot1	14718	004248649	-01319230	196262e-1	-028	5
2867	ENSMUSGcGpd1l	333433	01206212C	-00457268	00925	-016	5
2887	ENSMUSGcGpr89	67549	-01793243	-00107251	028	-02025	5
2895	ENSMUSGcGps2	56310	005104392	005149266	0435	-019	5
2899	ENSMUSGcGpx1	14775	-01089274	-00796690	-002	-02775	5
2905	ENSMUSGcGramd1b	235283	004149911	015331435	02675	-02375	5
2930	ENSMUSGcGrk2	110355	018090505	-00817362	01325	-0055	5
2947	ENSMUSGcGsdme	54722	-00395254	-02114406	00425	-013	5
2956	ENSMUSGcGsr	14782	-00559258	-01003869	02175	-0345	5
2958	ENSMUSGcGsta4	14860	-00891407	-00746023	00925	-01775	5
2959	ENSMUSGcGstk1	76263	014123503	-02101527	04175	-05325	5
2960	ENSMUSGcGstm1	14862	028804837	-00325136	03175	-035	5
2962	ENSMUSGcGstm4	14865	-01453377	-02190881	0175	-0295	5
2963	ENSMUSGcGstm5	14866	02309292C	-01136555	0335	-03075	5
2966	ENSMUSGcGstp1	14870	-00390993	-02000892	007	-03675	5
2990	ENSMUSGcGtpbp3	70359	008977754	016350085	018	-0175	5
2994	ENSMUSGcGucy1a1	60596	000254705	-01895151	01125	-01425	5
2995	ENSMUSGcGucy1a2	234889	-00920536	-01326035	0235	-026	5
2999	ENSMUSGcGulp1	70676	017171731	010021586	02575	-03525	5
3001	ENSMUSGcGylg1	27357	004872937	-01681157	02125	-0175	5
3016	ENSMUSGcHacer1	209462	00518752C	009362925	00175	-03	5
3021	ENSMUSGcHaghl	14651	-00489084	-02132216	-01325	-05325	5
3051	ENSMUSGcHddc2	69692	012049691	-01171858	00025	-022	5
3089	ENSMUSGcHibadh	58875	010459623	-01086046	-00225	-0215	5
3094	ENSMUSGcHikeshi	76669	-00786565	-01097700	00275	-047	5
3095	ENSMUSGcHint1	15254	002599321	-01618508	-00325	-01725	5
3097	ENSMUSGcHint3	66847	002452728	-01911296	02175	-0175	5
3099	ENSMUSGcHip1r	29816	010769913	-00640844	-001	-01275	5
3105	ENSMUSGcHlcs	110948	-02232177	-03147707	04175	-02425	5
3115	ENSMUSGcHmgcll1	208982	011261845	010111060	00775	-045	5
3117	ENSMUSGcHmgcs1	208715	-00099991	-04517538	04375	-016	5
3123	ENSMUSGcHmox1	15368	005049814	-01249160	051	-018	5
3128	ENSMUSGcHnmpa2b1	53379	005264486	004912358	01075	-051	5
3129	ENSMUSGcHnmpa3	229279	002099888	001452757	0065	-029	5
3135	ENSMUSGcHnmp1	59013	00033368C	009103881	00525	-01175	5
3136	ENSMUSGcHnmp2	56258	-00637412	-00744026	02125	-0285	5
3139	ENSMUSGcHnmp1	15388	-01852962	-01466486	022	-034	5
3152	ENSMUSGcHopx	74318	015525636	-03570037	042	-03475	5
3154	ENSMUSGcHpca	15444	-00556379	-01519048	02175	-02	5
3158	ENSMUSGcHp1r1	15452	-00987504	-01927569	01825	-011	5
3160	ENSMUSGcHras	15461	-00423323	-01903768	03825	-04125	5
3176	ENSMUSGcHsd1	72552	002546374	000273169	01925	-00575	5
3179	ENSMUSGcHsp90aa1	15519	011820307	-01461402	02775	-0125	5
3182	ENSMUSGcHspa12a	73442	010532931	-00576777	02775	-01825	5
3226	ENSMUSGcIdh2	269951	026178326	015304218	-0005	-04275	5
3229	ENSMUSGcIdh3g	15929	014488412	-00817729	0075	-0165	5
3230	ENSMUSGcIdi1	319554	002949844	-05416882	01825	-01375	5
3327	ENSMUSGcInts9	210925	019855928	008566127	02225	-01575	5
3335	ENSMUSGcIpa0	233726	012994923	001279690	0195	-004	5
3354	ENSMUSGcIsca1	69046	001779405	-00500147	0155	-0105	5
3366	ENSMUSGcIsh	16396	013220187	014114009	04	-01325	5
3378	ENSMUSGcItp1b1p1	16413	-00310436	-01734124	002	-0215	5
3399	ENSMUSGcItsn1	16443	027722848	-01074538	00225	-01175	5
3400	ENSMUSGcItsn2	20403	018753026	022087439	00075	-03475	5
3415	ENSMUSGcJosd1	74158	014923635	003874967	01175	-01675	5
3419	ENSMUSGcJph4	319984	020549652	012582808	02475	-028	5
3436	ENSMUSGcKatnb1	74187	01466131C	-00423696	0175	-0175	5
3468	ENSMUSGcKcnp1	70357	001546826	-00313578	0003	-018	5
3469	ENSMUSGcKcnp2	80906	005908755	-01237580	01375	-04975	5
3470	ENSMUSGcKcnp3	56461	-02201170	-00823738	0265	-0415	5
3471	ENSMUSGcKcnp4	80334	-00799954	-00377943	00825	-0295	5
3475	ENSMUSGcKcnp16	16517	008143785	-01427969	0005	-035	5
3485	ENSMUSGcKcnmb4	58802	004815508	001298591	0165	-03875	5
3502	ENSMUSGcKctd2	70382	011567121	-00390444	0175	-04925	5
3505	ENSMUSGcKctd4	67516	-00494913	-018848206	02175	-01625	5
3522	ENSMUSGcKhdrbs3	13992	014670116	-01269785	-0025	-02475	5
3530	ENSMUSGcKlf1a	16560	006678731	-01351675	00675	-01	5
3531	ENSMUSGcKlf1b	16561	005461203	004947730	0007	-021	5
3554	ENSMUSGcKlhdc2	69554	004074488	-01116673	-002	-0185	5
3566	ENSMUSGcKlhl3	1.01E+08	031954912	008746402	03025	-0115	5



3578	ENSMUSGcKpna4	16649	005913698	005536665	02025	-00425	5
3582	ENSMUSGcKras	16653	-00542797	-00309852	02425	-011	5
3583	ENSMUSGcKri1	215194	019494134	011196510	000725	-04275	5
3611	ENSMUSGcLamtor2	83409	003381775	-02066698	01225	-013	5
3614	ENSMUSGcLamtor5	68576	007388462	-02065916	0125	-013	5
3616	ENSMUSGcLancI2	71835	-00052560	-00748778	0105	-01725	5
3618	ENSMUSGcLap3	66988	01146643C	-03649399	02	-0195	5
3631	ENSMUSGcLbh	77889	-01151026	-02099579	-00025	-02125	5
3637	ENSMUSGcLcp1	18826	-02542034	-03172302	01225	-0315	5
3642	ENSMUSGcLdhd	52815	007023867	-00136071	0095	-007	5
3651	ENSMUSGcLetmd1	68614	-00126593	001061034	01	-0155	5
3654	ENSMUSGcLgal8	56048	003146145	-00749038	00415	-0205	5
3665	ENSMUSGcLhpp	76429	006643563	-02210495	015	-032	5
3688	ENSMUSGcLigI1	16897	003471924	-01493480	-0015	-0215	5
3718	ENSMUSGcLpin2	64898	024950855	00730477	016825	-0105	5
3744	ENSMUSGcLrrc20	216011	002828237	000299558	0007	-015	5
3748	ENSMUSGcLrrc47	72946	007371193	-00200318	014	-0135	5
3749	ENSMUSGcLrrc49	102747	004321874	-00989106	001	-02125	5
3756	ENSMUSGcLrrc73	224813	010827662	004106528	04675	-028	5
3773	ENSMUSGcLsomp	268890	-01293884	004968828	017	-00575	5
3775	ENSMUSGcLsm1	67207	000062965	003020864	02725	-02	5
3780	ENSMUSGcLsm2	27756	-02572725	-00324180	0375	-0495	5
3782	ENSMUSGcLsm4	50783	002452024	-01943882	00075	-036	5
3786	ENSMUSGcLsm8	76522	000358198	007658980	03075	-033	5
3815	ENSMUSGcLypIa1	226791	004349523	-03791706	0185	-005	5
3819	ENSMUSGcLyrn7	75530	002000479	-0109953	000675	-016	5
3821	ENSMUSGcLysmd1	217779	021829476	009577669	02625	-033	5
3827	ENSMUSGcLzts1	211134	019341841	001947680	0265	-0105	5
3848	ENSMUSGcMagi2	50791	-00058468	-00413468	03475	-02325	5
3867	ENSMUSGcMaoa	17161	-00175933	-00276119	03325	-04625	5
3868	ENSMUSGcMaob	109731	025187118	-02106621	01975	-029	5
3871	ENSMUSGcMap1c3a	66734	001498212	-02333412	0007	-0115	5
3875	ENSMUSGcMap2k1	26395	005882027	-01145333	-001	-0325	5
3876	ENSMUSGcMap2k2	26396	008204951	-00675040	00175	-02075	5
3878	ENSMUSGcMap2k4	26398	010196800	-00602324	000325	-0155	5
3920	ENSMUSGcMapre2	212307	008933234	-01579631	01825	-0505	5
3941	ENSMUSGcMat2a	232087	01646978C	024758222	000875	-02975	5
3947	ENSMUSGcMau2	74549	005672205	010741312	000875	-02975	5
3955	ENSMUSGcMblac2	72852	-00480042	004437249	000575	-0235	5
3965	ENSMUSGcMccc1	72039	008052082	-01470863	009	-019	5
3973	ENSMUSGcMcm4	17217	004373144	00774357	0305	-009	5
3980	ENSMUSGcMcts1	68995	00059742C	-01190911	04075	-01375	5
4002	ENSMUSGcMeer	26922	008778715	-01738272	00475	-03275	5
4011	ENSMUSGcMed24	23989	016340088	004326197	0235	-027	5
4027	ENSMUSGcMemo1	76890	003343146	002704952	0212	-02575	5
4031	ENSMUSGcMend	67943	-01814592	002575109	03575	-03125	5
4047	ENSMUSGcMett19	59052	-01107406	-01290862	00025	-0415	5
4051	ENSMUSGcMff	75734	009979444	-00763764	00125	-017	5
4073	ENSMUSGcMlib1	225164	005497406	00334147	01014	-01675	5
4075	ENSMUSGcMical1	171580	-01047976	-02781443	009	-02775	5
4080	ENSMUSGcMicos13	224904	003947171	-02586830	-001	-03475	5
4082	ENSMUSGcMicu2	68514	-00937045	-02277884	000675	-027	5
4084	ENSMUSGcMid1ip1	68041	014970523	-00904970	-0015	-0315	5
4088	ENSMUSGcMif	17319	-00832819	-02073369	03225	-037	5
4095	ENSMUSGcMindy3	66960	003306384	000423877	00425	-0135	5
4103	ENSMUSGcMkln1	27418	01567735C	012596380	0205	-0175	5
4111	ENSMUSGcMlst8	56716	-00040626	-00341598	0125	-01575	5
4112	ENSMUSGcMlycd	56690	012404612	-00904481	0075	-02575	5
4123	ENSMUSGcMob4	19070	000451873	-00069976	04	-014	5
4148	ENSMUSGcMpp1	17524	-00196649	012509341	00925	-022	5
4149	ENSMUSGcMpp2	50997	016906245	005253183	00025	-0135	5
4151	ENSMUSGcMpp7	75739	-00453679	-00932351	033	-01425	5
4153	ENSMUSGcMpped2	77015	-02428302	-02900300	02225	-047	5
4155	ENSMUSGcMpst	246221	003149934	-02117625	000325	-0375	5
4160	ENSMUSGcMras	17532	009027378	-01279657	0006	-03125	5
4166	ENSMUSGcMrph1	223658	031197545	003436625	0029	-0045	5
4167	ENSMUSGcMrpl1	94061	006420497	-01124166	01625	-01575	5
4169	ENSMUSGcMrpl11	66419	002087369	-01622509	02075	-017	5
4170	ENSMUSGcMrpl12	56282	001507035	-01083971	000875	-0195	5
4177	ENSMUSGcMrpl19	56284	011516065	003780686	000075	-0125	5
4179	ENSMUSGcMrpl20	66448	-00277574	-01624501	004	-03725	5
4194	ENSMUSGcMrpl39	27393	012397425	-00757103	02775	-0385	5
4198	ENSMUSGcMrpl42	67270	007580712	-01014857	000025	-04175	5
4201	ENSMUSGcMrpl45	67036	008985004	-00969875	-00125	-0495	5
4203	ENSMUSGcMrpl47	74600	-00310143	-01309451	-0025	-015	5
4206	ENSMUSGcMrpl50	28028	004772253	-01474097	00625	-02225	5
4208	ENSMUSGcMrpl52	68836	003700706	-01904840	0175	-02775	5
4214	ENSMUSGcMrps10	64657	-00370540	-00416808	02	-01175	5
4215	ENSMUSGcMrps11	67994	005471358	-01921785	02975	-023	5
4225	ENSMUSGcMrps21	66292	-00135498	-01943291	-00225	-02	5
4227	ENSMUSGcMrps23	64656	002481474	-01316949	00225	-04775	5
4238	ENSMUSGcMrps5	77721	001142366	-00147767	023	-02175	5
4239	ENSMUSGcMrps6	121022	01929817C	-00032656	-981308e-1	-01825	5
4265	ENSMUSGcMtch1	56462	000076441	-01854700	02575	-00775	5
4266	ENSMUSGcMtch2	56428	-00573969	-00592008	0006	-03125	5
4271	ENSMUSGcMtfp1	67900	-00294948	000240036	0155	-03625	5
4284	ENSMUSGcMtmr14	97287	013872184	006028304	01775	-00775	5
4285	ENSMUSGcMtmr2	77116	002116085	003506579	0006	-01475	5
4287	ENSMUSGcMtmr6	219135	002934978	001322838	0006	-009	5
4288	ENSMUSGcMtmr7	54384	000101308	-00806798	0031	-007	5
4293	ENSMUSGcMtpn	14489	000418166	-01212874	0115	-041	5
4307	ENSMUSGcMul1	68350	-00760760	001815442	0204	-0105	5
4311	ENSMUSGcMvk	17855	-00285010	-02967597	00015	-0165	5
4312	ENSMUSGcMvp	78388	00039471	00510207	-0005	-01225	5
4342	ENSMUSGcMyo5b	17919	009268215	010677975	-00225	-01475	5
4343	ENSMUSGcMyo6	17920	007851195	-02111592	-00125	-0125	5
4352	ENSMUSGcMzt1	76789	-00260970	-00798725	03275	-03725	5
4385	ENSMUSGcNap1I4	17955	031635671	-00024089	02475	-01175	5
4390	ENSMUSGcNapg	108123	001502037	000505647	01325	-04625	5
4392	ENSMUSGcNars1	70223	008845406	-00561296	0115	-01575	5
4393	ENSMUSGcNars2	244141	-00908593	-02417130	01475	-00725	5
4412	ENSMUSGcNcald	52589	006525225	-01517754	02525	-03275	5
4424	ENSMUSGcNck2	17974	005012326	-00599371	-0005	-0135	5
4425	ENSMUSGcNckap51	50884	009901184	0002412468	-0015	-0145	5
4427	ENSMUSGcNckap51	380969	003578901	006204268	000925	-0485	5
4447	ENSMUSGcNdrig2	29811	020708391	-02232477	0355	-054	5
4450	ENSMUSGcNdufa1	54405	-00129435	-01512924	01925	-05075	5
4460	ENSMUSGcNdufa6	67130	-00451000	-01714795	-0005	-019	5
4463	ENSMUSGcNdufa9	66108	004467305	-01868732	003	-03275	5
4466	ENSMUSGcNdufa2	75597	-00337769	-02789618	0002	-03325	5
4473	ENSMUSGcNdufb1	1.03E+08	001521551	-02072931	01625	-03375	5
4479	ENSMUSGcNdufb5	66046	-00642162	-02079472	-0015	-03175	5
4481	ENSMUSGcNdufb7	66916	002132563	-02091700	01575	-026	5
4484	ENSMUSGcNdufc2	68197	-01999649	-01788900	00065	-028	5
4485	ENSMUSGcNdufs1	227197	009330216	-01773894	011	-0285	5
4486	ENSMUSGcNdufs2	226646	007064468	-01854096	-003	-0225	5
4487	ENSMUSGcNdufs3	68349	-00524002	-02021855	-0005	-04	5
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4509	ENSMUSGcNefl	18039	-00548960	-02219382	01	-01475	5
4515	ENSMUSGcNek7	59125	-00019870	-02093654	-00025	-01375	5
4534	ENSMUSGcNf1	18015	003237738	001380471	1008	-022	5
4537	ENSMUSGcNfat5	54446	-00302863	-00148866	017	-01575	5
4545	ENSMUSGcNfu1	56748	000272568	-01607759	00015	-03675	5
4572	ENSMUSGcNipnap3b	66536	001291488	-01249523	0175	-0095	5
4574	ENSMUSGcNlt1	27045	010636642	-00696194	009	-00975	5
4575	ENSMUSGcNlt2	52633	00316329C	-01454718	01925	-0045	5



4598	ENSMUSGcNoc2l	57741	013327775-00030811	03525	-0145	5
4600	ENSMUSGcNoc4l	100608	010759629-01587055	0145	-0095	5
4617	ENSMUSGcNop53	68077	00292844c-00509643	0025	-0265	5
4619	ENSMUSGcNop58	55989	00881924c-01931029	02675	-04925	5
4622	ENSMUSGcNos1	18125	01749718c-00942540	0035	-0175	5
4623	ENSMUSGcNos1ap	70729	038008606	01149653202725	-014	5
4636	ENSMUSGcNpepps	19155	016989143-00522671	01035	-00875	5
4652	ENSMUSGcNqo1	18104	003417185-01344659	0019	-02125	5
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4697	ENSMUSGcNt5dc3	103466	021083275-01145167	0001	-02525	5
4711	ENSMUSGcNuak1	77976	021043973-00193657	01375	-02225	5
4719	ENSMUSGcNudc	18221	-00019029-03080830	-00175	-0235	5
4722	ENSMUSGcNudcd3	209586	000558112003115277	000775	-00925	5
4728	ENSMUSGcNudt16	75686	-01518707-01577177	00825	-034	5
4729	ENSMUSGcNudt16i1	66911	002266206-01706815	02875	-0095	5
4731	ENSMUSGcNudt18	213484	002090327-01277773	00045	-013	5
4732	ENSMUSGcNudt19	110959	008092146-02214995	02625	-0505	5
4733	ENSMUSGcNudt2	66401	005315672-04122362	04525	-037	5
4737	ENSMUSGcNudt5	53893	006291647000747352	0003	-02425	5
4745	ENSMUSGcNup107	103468	005869027-00367882	-00175	-04425	5
4746	ENSMUSGcNup133	234865	012420822000456716	00065	-01875	5
4748	ENSMUSGcNup155	170762	-00584525	02057410602375	-044	5
4758	ENSMUSGcNup54	269113	01592600101162181302	-02125	5	
4760	ENSMUSGcNup62	18226	014623137002551135	000875	-043	5
4762	ENSMUSGcNup88	19069	007125761009298057	01095	-03675	5
4765	ENSMUSGcNutf2	68051	-00086615-01038061	0105	-0085	5
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4777	ENSMUSGcOat	18242	013975548-01720109	02775	-02475	5
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4783	ENSMUSGcOdr4	226499	-00200714-00398231	01975	-00825	5
4793	ENSMUSGcOlffm1	56177	-01228419-00444554	00065	-025	5
4801	ENSMUSGcOpa1	74143	009082399-0036261	0101625	-049	5
4806	ENSMUSGcOplah	75475	011513017-00464192	000625	-023	5
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4833	ENSMUSGcOtub1	107260	003015208-01688455	03375	-0155	5
4837	ENSMUSGcOtdub6b	72201	013944708-00896373	04225	-0215	5
4846	ENSMUSGcOxr1	170719	013729215-00071307	000875	-02375	5
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4867	ENSMUSGcPafah2	100163	013400653-01280302	000275	-03325	5
4893	ENSMUSGcPank4	269614	0100491360049248	027155	-04025	5
4899	ENSMUSGcPapps2	23972	009621144-02012203	0227	-01875	5
4907	ENSMUSGcPank7	57320	001018908-02500105	00085	-0155	5
4919	ENSMUSGcPawbp1	67367	-00400412	016342521011	-03175	5
4951	ENSMUSGcPcdhga10	93722	-01557860	0037712060325	-01075	5
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5041	ENSMUSGcPdpk1	18607	008666743000093652	004025	-03	5
5044	ENSMUSGcPds5b	100710	007248262013810855	01825	-0225	5
5046	ENSMUSGcPdxk	216134	007231821005563710	00055	-0235	5
5057	ENSMUSGcPecr	111175	-00821863-02032734	00625	-01425	5
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5066	ENSMUSGcPes1	64934	01793339c-01000165	00055	-01825	5
5070	ENSMUSGcPex12	103737	-00010131-00346007	0175	-0475	5
5079	ENSMUSGcPex5l	58869	-00075472-01393499	-00025	-013	5
5083	ENSMUSGcPfdn1	67199	-00070192-01879212	02775	-0465	5
5085	ENSMUSGcPfdn4	109054	005123074-01421869	-00325	-01925	5
5086	ENSMUSGcPfdn5	56612	006451595-01599639	02175	-00275	5
5090	ENSMUSGcPfk1	18641	013915395-01675202	0002	-02625	5
5091	ENSMUSGcPfkam	18642	014508754-01438756	0007	-036	5
5094	ENSMUSGcPgamm1	18648	00743746c-01623796	02225	-04475	5
5096	ENSMUSGcPgamm5	72542	018714483003638574	01925	-041	5
5101	ENSMUSGcPgghg	212974	00591496c-01909686	0019	-004	5
5103	ENSMUSGcPgl1	18655	004148124-03120505	0125	-027	5
5110	ENSMUSGcPgp	67078	009705482-00997172	0003	-0205	5
5114	ENSMUSGcPgs1	74451	012941034-00413973	02375	-01375	5
5119	ENSMUSGcPhaf1	234678	008236315-00551132	01825	-02475	5
5131	ENSMUSGcPhf5a	68479	00908701c-01176036	00525	-0145	5
5134	ENSMUSGcPhghh	236539	014915755-01862784	02575	-025	5
5136	ENSMUSGcPhika1	18679	017118206-01106007	020975	-0075	5
5137	ENSMUSGcPhika2	110094	02207594201158074	01015	-015	5
5138	ENSMUSGcPhib	102093	008754315-01726425	029	-025	5
5139	ENSMUSGcPhig1	18682	003000821-02110977	03035	-036	5
5140	ENSMUSGcPhig2	68961	005222667-00687268	02475	-03925	5
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5154	ENSMUSGcPhyhipl	70911	-00524053-02622980	0037	-0435	5
5155	ENSMUSGcPi4ka2a	84095	012563163-00420830	024	-0035	5
5156	ENSMUSGcPi4ka	224020	019389589002349471	02015	-028	5
5177	ENSMUSGcPik3cb	74769	015837305003490685	0135	-03075	5
5180	ENSMUSGcPik3r1	18708	021666522-00148552	0125	-0285	5
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5187	ENSMUSGcPip4k2b	108083	01625677c-00263747	0023	-0365	5
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5189	ENSMUSGcPip4p1	219024	-00109041-003419798	01125	-02375	5
5192	ENSMUSGcPip5k1b	18719	030789495015694183	02025	-052	5
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5215	ENSMUSGcPla2g4e	329502	-02830345-03503013	02375	-004	5
5216	ENSMUSGcPla2g6	53357	001342624-00708398	000975	-0265	5
5222	ENSMUSGcPicb1	18795	008308763-00944986	004	-0195	5
5225	ENSMUSGcPicd1	18799	-00281923-00620446	00225	-0375	5
5236	ENSMUSGcPid2	18806	012393581002723560	0003	-035	5
5252	ENSMUSGcPlekhm2	69582	018765209-01667517	01115	-0395	5
5256	ENSMUSGcPlin3	66905	00028170c-00900066	000575	-01475	5
5275	ENSMUSGcPls3	102866	-00118385-01167277	0101375	-01775	5
5290	ENSMUSGcPmch	110312	-01345728-07370749-	-00175	-052	5
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5319	ENSMUSGcPoglut3	68304	-00614819-01624272	0202425	-00675	5
5362	ENSMUSGcPppa2	74776	011235635-01505899	02027	-00525	5
5366	ENSMUSGcPpcs	106564	-01020188-01527470	011175	-00925	5
5380	ENSMUSGcPpif	105675	-00148417-00703758	01925	-03425	5
5392	ENSMUSGcPpmlf	68606	02262953c006804964021	-0145	5	
5394	ENSMUSGcPpmlh1	319468	014647065011742053	01825	-00675	5
5402	ENSMUSGcPpp1cc	19047	-01106164-00221874	0202	-01525	5
5436	ENSMUSGcPpp2r5b	225849	007616086002755075	0155	-0265	5
5437	ENSMUSGcPpp2r5c	26931	007779973-00796498	00025	-015	5
5438	ENSMUSGcPpp2r5d	21770	00539652c-00945109	02175	-0085	5
5439	ENSMUSGcPpp2r5e	26932	007279816-00437914	0002	-0125	5
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5469	ENSMUSGcPrdx6	11758	008263084-01444100	0005	-0185	5
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5475	ENSMUSGcPrex1	277360	002560816-01940246	000375	-027	5
5480	ENSMUSGcPrkaa2	108079	00833814012760374	0008	-01875	5
5481	ENSMUSGcPrkab1	19079	-02172476-00936265	02475	-0385	5
5485	ENSMUSGcPrkag1	19082	005224071-00930495	01475	-0235	5
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5493	ENSMUSGcPrkcd	18753	-02907117-03199482	01015	-0115	5
5504	ENSMUSGcPrkg2	19092	002507873-00389235	01525	-02625	5



5512	ENSMUSGcPrmt8	381813	008359638	-01122573	036	-03325	5
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5526	ENSMUSGcPrpf4	70052	003679368	011996208	00325	-01725	5
5527	ENSMUSGcPrpf40a	56194	005675825	004312631	011725	-015	5
5530	ENSMUSGcPrpf6	68879	015779717	-00766520	01825	-04175	5
5534	ENSMUSGcPrps2	110639	-00660098	-00786238	01425	-025	5
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5553	ENSMUSGcPrxl2b	66469	000566408	-04011574	01325	-0155	5
5555	ENSMUSGcPsa1	107272	013917441	-01122381	01525	-02375	5
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5570	ENSMUSGcPsb1	26445	-00795832	-02289836	0515	-02725	5
5572	ENSMUSGcPsb4	19172	001296838	-01666341	00875	-03225	5
5579	ENSMUSGcPsc1	19182	010308236	-01105286	01	-0185	5
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5597	ENSMUSGcPse1	19186	-00729772	-00597728	-0025	-034	5
5605	ENSMUSGcPsmg3	66506	004141801	008881702	02775	-016	5
5609	ENSMUSGcPtar1	72351	-01192652	-02288946	00075	-01825	5
5617	ENSMUSGcPtass2	27388	-01244969	015251846	0415	-01775	5
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5626	ENSMUSGcPtgr2	77219	000292441	-02693012	01725	-02475	5
5627	ENSMUSGcPtgr3	225791	002388376	-00498203	00525	-0155	5
5631	ENSMUSGcPtk2b	19229	020335953	-00672713	0005	-01375	5
5638	ENSMUSGcPtp4a2	19244	-01018164	-00934921	00375	-01125	5
5644	ENSMUSGcPtpn11	19247	008515924	-01016520	013	-029	5
5650	ENSMUSGcPtpn4	19258	-00770755	-01132944	02375	-01025	5
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5671	ENSMUSGcPtrh2	217057	001790215	-00600859	013	-019	5
5698	ENSMUSGcPygb	110078	012062168	-02060925	01775	-03225	5
5699	ENSMUSGcPygl	110095	007336874	-00248056	00225	-009	5
5721	ENSMUSGcRab11b	19326	002172665	-01365475	007	-01225	5
5728	ENSMUSGcRab14	68365	006836311	-00143235	0235	-008	5
5731	ENSMUSGcRab1a	19324	001991628	-01175113	-00025	-023	5
5737	ENSMUSGcRab26	328778	018109831	-00169196	000875	-0375	5
5739	ENSMUSGcRab27b	80718	-00254999	-00891412	00225	-04	5
5746	ENSMUSGcRab33a	19337	-00596188	-02588298	0175	-03025	5
5747	ENSMUSGcRab33b	19338	-00685784	-01288169	03	-05175	5
5755	ENSMUSGcRab3c	67295	022181463	005893444	05425	-04225	5
5756	ENSMUSGcRab3d	19340	012661225	016822280	03025	-0515	5
5763	ENSMUSGcRab4a	19341	016417161	020991905	0415	-0265	5
5766	ENSMUSGcRab5b	19344	007316998	-01539139	00055	-02975	5
5767	ENSMUSGcRab5c	19345	002047905	-01809867	003	-016	5
5772	ENSMUSGcRab8b	235442	007452215	-00290773	00325	-0365	5
5773	ENSMUSGcRab9b	319642	004323966	-00292145	02175	-022	5
5777	ENSMUSGcRabepk	227746	-00165135	-01432256	016	-00975	5
5784	ENSMUSGcRab1	68708	012263334	000126915	0155	-022	5
5788	ENSMUSGcRac2	19354	-01154801	-03721671	-004	-01875	5
5796	ENSMUSGcRae1	66679	-00910283	-00419950	0185	-0415	5
5805	ENSMUSGcRalgapb	228850	001821191	010949121	00045	-01475	5
5811	ENSMUSGcRan	19384	003003090	-01461633	03125	-0445	5
5812	ENSMUSGcRanbp1	19385	-00121087	-01114617	024	-005	5
5817	ENSMUSGcRanbp6	240614	-00353828	015293664	02325	-0105	5
5819	ENSMUSGcRangap1	19387	012449375	-01275492	0205	-0065	5
5823	ENSMUSGcRap1gap2	380711	024959005	007221259	02425	-00275	5
5824	ENSMUSGcRap1gds1	229877	003043032	-01812689	02525	-002	5
5830	ENSMUSGcRapgef3	223864	016991433	001034021	-0015	-05325	5
5832	ENSMUSGcRapgef5	217944	017052175	021122134	03875	-02975	5
5834	ENSMUSGcRapgef11	268480	022615543	011397725	00725	-03075	5
5836	ENSMUSGcRars1	104458	005083642	-01494381	02125	-0195	5
5837	ENSMUSGcRars2	109093	007865068	002863718	00045	-03	5
5839	ENSMUSGcRasa2	114713	-00239627	-03641704	00775	-0415	5
5841	ENSMUSGcRasal1	19415	030155053	016587517	03025	-0125	5
5847	ENSMUSGcRasgrf2	19418	014918852	004003310	03105	-01225	5
5855	ENSMUSGcRbbp4	19646	001413383	-00155949	01525	-01025	5
5859	ENSMUSGcRbbp9	26450	000508291	-02151029	02325	-018	5
5867	ENSMUSGcRbm10	236732	023035653	-00057127	00075	-01725	5
5882	ENSMUSGcRbm39	170791	003424920	-022889578	01015	-019	5
5891	ENSMUSGcRbm1	209003	017725537	-00139854	01225	-01925	5
5892	ENSMUSGcRbp1	19659	008531303	-02310799	03925	-054	5
5900	ENSMUSGcRctb1	71330	-00774076	-00884332	0145	-03	5
5935	ENSMUSGcRex1	104444	-00043587	-01388292	02525	-0135	5
5937	ENSMUSGcRfc2	19718	012547346	-00411477	0035	-03975	5
5946	ENSMUSGcRfx3	19726	006113543	006927325	0001	-02175	5
5957	ENSMUSGcRgs17	56533	020625644	019514873	03335	-02075	5
5959	ENSMUSGcRgs20	58175	002856717	-03140192	01275	-03	5
5962	ENSMUSGcRgs6	50779	003762016	-01977805	-003	-02725	5
5963	ENSMUSGcRgs7	24012	002886155	-02230213	01975	-01975	5
5964	ENSMUSGcRgs7bp	52882	-00038320	005653225	-00125	-032	5
5977	ENSMUSGcRhod1	104215	-02161866	-02957506	0175	-02725	5
5978	ENSMUSGcRhot1	59040	007520196	004117101	02275	-013	5
5987	ENSMUSGcRida	15473	006787405	-02431686	02525	-0575	5
5990	ENSMUSGcRimbp2	231760	015675226	011690291	0335	-021	5
5998	ENSMUSGcRint1	72772	019001556	010252818	01725	-0075	5
6004	ENSMUSGcRit1	19769	013475448	-00304797	044	-024	5
6005	ENSMUSGcRit2	19762	-00118562	-02330234	0225	-0295	5
6009	ENSMUSGcRmc1	76482	008149498	-00427561	01625	-0065	5
6010	ENSMUSGcRmdn1	66302	-00217895	-008190052	01025	-01175	5
6011	ENSMUSGcRmdn2	381110	004212665	002533043	0295	-0565	5
6012	ENSMUSGcRmdn3	67809	005846069	-00253972	00025	-02075	5
6025	ENSMUSGcRnf112	22671	032028496	014769998	00325	-02525	5
6035	ENSMUSGcRnf141	67150	-00175794	-02196853	0355	-02475	5
6036	ENSMUSGcRnf146	68031	012107832	000243893	02325	-002	5
6064	ENSMUSGcRo60	20822	001321065	009202142	0105	-0355	5
6068	ENSMUSGcRock2	19878	009023113	-00871764	-00225	-02625	5
6069	ENSMUSGcRogdi	66049	018201863	-00141742	0002	-013	5
6072	ENSMUSGcRpa1	68275	022462677	-00631776	-00175	-02575	5
6077	ENSMUSGcRpe	66646	010844915	004595408	0017	-00325	5
6101	ENSMUSGcRpl26	19941	013278917	-01142649	0165	-0345	5
6102	ENSMUSGcRpl27	19942	002292041	-02807481	0285	-0065	5
6106	ENSMUSGcRpl3	27367	006524975	-00849036	02975	-0225	5
6121	ENSMUSGcRpl6	19988	006873948	-01052288	02225	-0195	5
6125	ENSMUSGcRpl9	20005	011563894	-01191395	0555	-03325	5
6143	ENSMUSGcRps15a	267019	006418748	-01292884	03675	-04325	5
6155	ENSMUSGcRps27	57294	013832561	-01545652	-001	-021	5
6156	ENSMUSGcRps27a	78294	014095845	-01100195	02625	-035	5
6168	ENSMUSGcRps6kb1	72508	003085940	012567024	0414	-04775	5
6173	ENSMUSGcRpsa	16785	009466377	-01458902	04175	-02175	5
6182	ENSMUSGcRras2	66922	022435124	001362298	00725	-01125	5
6195	ENSMUSGcRscr1	66880	-00774218	-02107510	0205	-015	5
6199	ENSMUSGcRtcb	28088	-01085942	-00309261	02575	-007	5
6222	ENSMUSGcRuvb1	56505	000974105	-01678569	00525	-01425	5
6229	ENSMUSGcS100a1	20193	394e-07	-02772184	0255	-0275	5
6232	ENSMUSGcS100a13	20196	007006356	-02348538	01325	-02475	5
6242	ENSMUSGcScacn11	83493	-00098745	008647751	01625	-03175	5
6255	ENSMUSGcSamm50	68653	016666175	000596858	-001	-01475	5
6268	ENSMUSGcSart1	20227	012854613	-00463057	00725	-0185	5
6276	ENSMUSGcSbf1	77980	010544503	000275832	00775	-01975	5
6295	ENSMUSGcScfd1	76983	011906214	-00790778	01675	-04925	5
6296	ENSMUSGcScfd2	212986	008640969	-01398717	0375	-0305	5
6323	ENSMUSGcScyl1	78891	015874944	004492445	01425	-02	5
6346	ENSMUSGcSds1	257635	00195481C	-02113214	0105	-013	5
6351	ENSMUSGcSec1412	67815	00395404	-01855955	00065	-01925	5
6375	ENSMUSGcSelenom	114679	-01527498	-01016790	03325	-03125	5
6395	ENSMUSGcSenp2	75826	007562525	-00610764	0015	-019	5
6398	ENSMUSGcSenp8	71599	011072954	-00053620	01175	-01325	5



6402	ENSMUSGcSeptin10	103080	-00789361	-01670802	01575	-04475	5
6405	ENSMUSGcSeptin3	24050	015935985	-00492257	014	-022	5
6407	ENSMUSGcSeptin5	18951	015495995	-0009593	00025	-031	5
6408	ENSMUSGcSeptin6	56526	015557176C	-01754388	006	-02225	5
6409	ENSMUSGcSeptin7	235072	008178496	-00726757	0035	-03675	5
6416	ENSMUSGcSerhl	68607	01556956	-01216514	02275	-01	5
6443	ENSMUSGcSf3a1	67465	017721245	00658651	100725	-04675	5
6460	ENSMUSGcSfxn3	94280	012069213	-00950681	03075	-0115	5
6474	ENSMUSGcSgta	52551	-00151968	-01346588	0022	-014	5
6485	ENSMUSGcSh3bp5	24056	016726289	-00234456	0265	-02525	5
6506	ENSMUSGcShc3	20418	019956474	-01199868	-002	-0205	5
6516	ENSMUSGcShoc2	56392	005507287	00773497	703125	-0355	5
6521	ENSMUSGcShroom2	110380	-00199472	000852357	008	-01825	5
6528	ENSMUSGcSlk2	235344	-00469989	-00097738	0095	-047	5
6530	ENSMUSGcSlke1	66641	005260231	-00312950	0115	-00875	5
6532	ENSMUSGcSin3a	20466	00722466	00779275	019	-015	5
6533	ENSMUSGcSin3b	20467	010915465	-00391183	02225	-011	5
6536	ENSMUSGcSipa112	244668	002868005	003170437	01975	-0035	5
6575	ENSMUSGcSlc1a3	20512	-00156267	00308413	0025	-034	5
6590	ENSMUSGcSlc25a10	27376	00409541C	004523560	00225	-01675	5
6595	ENSMUSGcSlc25a15	18408	-00197860	-00689583	01375	-0335	5
6606	ENSMUSGcSlc25a26	67582	002685221	-00147349	00925	-02925	5
6615	ENSMUSGcSlc25a4	11739	001678324	-01687417	01775	-0225	5
6619	ENSMUSGcSlc25a46	67453	004191807	000738332	03075	-00825	5
6620	ENSMUSGcSlc25a5	11740	002277258	-01392599	02625	-0265	5
6637	ENSMUSGcSlc30a3	22784	-00656837	012121986	0195	-01525	5
6689	ENSMUSGcSlc66a2	66943	-01042291	012621006	03025	-0325	5
6737	ENSMUSGcSlu7	193116	008387345	-00873887	00175	-019	5
6759	ENSMUSGcSmchd1	74355	00619924C	003623240	-00175	-03325	5
6775	ENSMUSGcSmn1	20595	009314798	-00455398	0046	-03075	5
6781	ENSMUSGcSmpd4	77626	027837251	001268747	0125	-02825	5
6785	ENSMUSGcSmu1	74255	-00009550	-01220765	01075	-05275	5
6791	ENSMUSGcSnap23	20619	012614525	002447300	000575	-0145	5
6809	ENSMUSGcSnnp70	20637	010933212	014079972	02575	-03225	5
6810	ENSMUSGcSnrpa	53607	-00029498	-01718485	02575	-0525	5
6812	ENSMUSGcSnrpb	20638	005388787	-00315082	03275	-012	5
6815	ENSMUSGcSnrpd1	20641	-00132406	-01365546	0315	-04875	5
6816	ENSMUSGcSnrpd2	107686	-00471118	-02607094	026	-05475	5
6817	ENSMUSGcSnrpd3	67332	-00283341	-01894679	02125	-02175	5
6819	ENSMUSGcSnrpf	69878	-00419594	-02218921	02175	-03675	5
6820	ENSMUSGcSnrpg	68011	000945696	-01938977	01375	-0125	5
6827	ENSMUSGcSnx1	56440	000867735	-00907926	-0005	-03125	5
6831	ENSMUSGcSnx13	217463	-00534227	00159177	011475	-007	5
6840	ENSMUSGcSnx24	69226	008915908	-00335255	0005	-03775	5
6865	ENSMUSGcSord	20322	007598358	003184535	013	-04	5
6871	ENSMUSGcSowahb	78088	-00044811	-00252899	00015	-02475	5
6898	ENSMUSGcSpq21	27965	000986635	003513044	02825	-023	5
6921	ENSMUSGcSpsyd4	66701	01489059C	-00673132	000375	-0295	5
6923	ENSMUSGcSptan1	20740	004162426	00461042	02007	-03075	5
6925	ENSMUSGcSptbn1	20742	-00090094	00369971	19019	-01625	5
6926	ENSMUSGcSptbn2	20743	025982785	017301398	0125	-045	5
6931	ENSMUSGcSqor	59010	018499537	-00088396	00675	-03225	5
6934	ENSMUSGcSrbd1	78586	006988195	-01602151	-00125	-0505	5
6935	ENSMUSGcSrc	20779	010512009	-00882122	013	-03125	5
6943	ENSMUSGcSri	109552	001817883	-01806709	01575	-025	5
6944	ENSMUSGcSrm	20810	-01037539	002752405	01525	-017	5
6945	ENSMUSGcSrp14	20813	000780006	-01491135	0345	-01975	5
6949	ENSMUSGcSrp9	27058	008463839	-01046553	05225	-027	5
6950	ENSMUSGcSrpk1	20815	002971611	0005158627	0275	-00575	5
6985	ENSMUSGcSsrp1	20833	014362436	-00067758	0235	-01625	5
7003	ENSMUSGcStambpl1	76630	000967672	-01005817	00175	-0145	5
7008	ENSMUSGcStard7	99138	006128341	-01069668	0015	-01375	5
7012	ENSMUSGcStat5b	20851	015749347	001422476	033	-008	5
7033	ENSMUSGcStk39	53416	005416536	-01218185	022	-0125	5
7044	ENSMUSGcStrada	72149	012006358	-00677720	00125	-02425	5
7046	ENSMUSGcStrap	20901	001390306	-01513048	012	-03075	5
7048	ENSMUSGcStrip1	229707	011635934	001809282	0015	-02625	5
7050	ENSMUSGcStrn	268980	-00963847	-00514255	00425	-01575	5
7051	ENSMUSGcStrn3	94186	00515137C	-00347045	000725	-02225	5
7057	ENSMUSGcSbx12	100226	007275939	-01113943	02175	-012	5
7058	ENSMUSGcSbx16	228960	008345185	001246561	0115	-0215	5
7064	ENSMUSGcSbx3	20908	-00920267	004932043	00975	-014	5
7066	ENSMUSGcSbx7	53331	003849939	-00841066	013	-0125	5
7068	ENSMUSGcSxbp1	20910	005503943	-00638817	0235	-02275	5
7070	ENSMUSGcSxbp3	20912	-00194068	-00226564	00075	-01725	5
7073	ENSMUSGcSxbp5l	20727	-00673265	-00353904	00525	-019	5
7074	ENSMUSGcSxbp6	217517	00757290C	-01353984	-00225	-05025	5
7076	ENSMUSGcSxcla2	20915	004346909	-01776138	00015	-053	5
7087	ENSMUSGcSxlt4a1	29859	004525098	-01150093	029	-02225	5
7093	ENSMUSGcSxox	211389	010100752	00333384	100675	-025	5
7116	ENSMUSGcSympk	68188	025389465	00374751	18027	-011	5
7118	ENSMUSGcSyn2	20965	021814006	-01119030	0215	-0165	5
7124	ENSMUSGcSyngap1	240057	02448047	014711303	00095	-0215	5
7153	ENSMUSGcSyt12	83671	-00853876	-01745772	01675	-02775	5
7182	ENSMUSGcTagln3	56370	010135863	-03032077	00055	-01025	5
7200	ENSMUSGcTars2	71807	004059024	-00360333	02125	-02975	5
7209	ENSMUSGcTbcd10b	68449	009573803	-00569316	011	-036	5
7211	ENSMUSGcTbcd13	70296	010305356	0007379860	01175	-02475	5
7218	ENSMUSGcTbcd122b	381085	01243230C	-00596999	01075	-008	5
7220	ENSMUSGcTbcd124	224617	006921138	004887095	0145	-031	5
7223	ENSMUSGcTbcd132	544696	-01672546	-01534521	03025	-006	5
7260	ENSMUSGcTcpl1	21454	009864582	-01308269	004	-02575	5
7261	ENSMUSGcTcpl11l1	320554	007767857	-01408945	0225	-0015	5
7268	ENSMUSGcTdrd7	100121	006333668	-00903079	0125	-01675	5
7284	ENSMUSGcTerf2	21750	004981555	-00830561	03825	-01625	5
7285	ENSMUSGcTerf2ip	57321	013663142	-00751379	00095	-00825	5
7316	ENSMUSGcThnsl1	208967	003093747	-01351014	02075	-0455	5
7320	ENSMUSGcThoc3	73666	007562512	-01754009	03	-01	5
7321	ENSMUSGcThoc5	107829	014609366	-00704412	020225	-00775	5
7331	ENSMUSGcThumpd3	14911	011484399	-01605783	0005	-0155	5
7341	ENSMUSGcTimm13	30055	-00288674	-02637782	-00225	-0135	5
7347	ENSMUSGcTimm29	69773	008541688	-00619241	045	-0195	5
7352	ENSMUSGcTimm9	30056	-00318272	-00343009	-00175	-01675	5
7381	ENSMUSGcTmcc1	330401	012331865	03138619	93018	-04025	5
7385	ENSMUSGcTmcc6	71983	000328031	014081139	01425	-03375	5
7455	ENSMUSGcTmem126b	68472	001209646	-00242075	012	-044	5
7455	ENSMUSGcTmem243	652925	000721031	014533506	01	-01775	5
7458	ENSMUSGcTmem254	66039	-03444504	-03683342	03325	-04025	5
7493	ENSMUSGcTmod2	50876	-006795021	-00663743	025	-0185	5
7517	ENSMUSGcTnpo1	238799	005959172	015521383	03075	-0375	5
7518	ENSMUSGcTnpo2	212999	013967705	-0055762	001	-01425	5
7519	ENSMUSGcTnpo3	320938	007557574	00106018	00022	-023	5
7527	ENSMUSGcToe1	68276	-00885639	-00133282	01425	-02975	5
7531	ENSMUSGcTom11	71943	011987011	-00404080	0315	-0255	5
7536	ENSMUSGcTomm40	53333	-00307530	-00654527	01175	-01825	5
7538	ENSMUSGcTomm5	68512	001812191	-02224868	0115	-018	5
7544	ENSMUSGcTor1a1p1	208263	003052402	-00359428	0125	-018	5
7557	ENSMUSGcTpgs1	110012	-00008315	-01164356	-785046e-1	-0365	5
7568	ENSMUSGcTppp	72948	011971565	-01244522	-00275	-02475	5
7581	ENSMUSGcTraf6	22034	-01061455	-00375380	0175	-016	5
7588	ENSMUSGcTrap1	68015	005162103	-02240362	00175	-028	5
7590	ENSMUSGcTrappc10	216131	016755962	013146301	0275	-0195	5
7591	ENSMUSGcTrappc11	320714	009603795	005294353	000475	-00975	5
7598	ENSMUSGcTrappc4	60409	000789059	-01436835	043	-026	5
7600	ENSMUSGcTrappc6b	78232	-00367413	-00785911	00775	-033	5
7606	ENSMUSGcTriap1	69076	018472628	007301645	018	-003	5



7609	ENSMUSGCTrim23	81003	-00002133-00467167803475	-043	5
7625	ENSMUSGCTrim66	330627	02048771200063027501925	-01475	5
7627	ENSMUSGCTrim9	94090	010313282-02308561.038	-01175	5
7628	ENSMUSGCTrio	223435	00175472300888585300975	-00975	5
7653	ENSMUSGCTrpm3	226025	00475983C-02271780-00175	-03925	5
7670	ENSMUSGCTsnax	53424	010814413-0095965000225	-0125	5
7699	ENSMUSGCTtc27	74196	010336496-007046580135	-022	5
7704	ENSMUSGCTtc39c	72747	00354529500202314200525	-03025	5
7706	ENSMUSGCTtc7b	104718	01754201800123300800875	-019	5
7718	ENSMUSGCTtpal	76080	-00328915-0106967202575	-0185	5
7728	ENSMUSGCTubb2a	22151	012186473-0213580900375	-0135	5
7735	ENSMUSGCTubg1	103733	012254133-010125890195	-0045	5
7738	ENSMUSGCTubgcp3	259279	00492538601049367202275	-0365	5
7743	ENSMUSGCTulp3	22158	0174594050103282200305	-0185	5
7745	ENSMUSGCTusc2	80385	009372574-00797946029	-00775	5
7750	ENSMUSGCTw1	19230	00614998-005473030275	-02325	5
7751	ENSMUSGCTw2	23999	016992135-0005527603125	-0395	5
7762	ENSMUSGCTxnl1	53382	-00184118-006905860335	-03325	5
7763	ENSMUSGCTxnl4a	27366	-00241412-003526350375	-02825	5
7772	ENSMUSGCTyw5	68736	0067165440229661790435	-021	5
7775	ENSMUSGCUZsurp	67958	001658604005032452004	-04425	5
7787	ENSMUSGCUbap1	67123	008058671000105341-001	-03525	5
7790	ENSMUSGCUbash3b	78288	-01048215-0282619802075	-004	5
7797	ENSMUSGCUbe2f	67921	008183596-00954479-00025	-0215	5
7810	ENSMUSGCUbe2q2	109161	003433301-0013532200675	-0455	5
7818	ENSMUSGCUbe3b	117146	01423398C0058339690135	-025	5
7825	ENSMUSGCUbl4a	27643	003863248-0133162601225	-03025	5
7830	ENSMUSGCUbp1	22221	019645103013347078-00025	-04425	5
7832	ENSMUSGCUbqln2	54609	00440900700404003300375	-015	5
7854	ENSMUSGCUcp3	22229	-03537756-0669449601525	-0155	5
7855	ENSMUSGCUevld	54122	-00413190-00617755006	-03125	5
7856	ENSMUSGCUfc1	66155	-00188988-017558960365	-009	5
7866	ENSMUSGCUgp2	216558	001934831-022916670175	-051	5
7868	ENSMUSGCUlk1	22241	02608669501520665701175	-0195	5
7872	ENSMUSGCUmps	22247	027954484-0074165500925	-02	5
7884	ENSMUSGCUnc80	329178	0006433680111243440045	-0125	5
7895	ENSMUSGCUqcc3	107197	004144775-0053672304325	-016	5
7901	ENSMUSGCUqcrf51	66694	005165825-02931030-00325	-02025	5
7912	ENSMUSGCUse1	67023	006569656-01159569023	-023	5
7921	ENSMUSGCUsp15	14479	00874634300222884601375	-02525	5
7930	ENSMUSGCUsp33	170822	-0035098000520348001775	-033	5
7932	ENSMUSGCUsp35	244144	01030163200141623200025	-01725	5
7934	ENSMUSGCUsp39	28035	01228422800396690302775	-019	5
7938	ENSMUSGCUsp46	69727	004782608-008999540111	-02425	5
7945	ENSMUSGCUsp7	252870	00884016600705713101675	-01225	5
7978	ENSMUSGCVav3	57257	000354497-0097398200075	-01625	5
7986	ENSMUSGCVdca1	22333	002049838-01448137012	-0265	5
7992	ENSMUSGCVill	22351	039534892012970025-883177e-1	-033	5
8003	ENSMUSGCVps11	71732	005029458-003820202425	-01025	5
8007	ENSMUSGCVps13d	230895	-01132928-00038645023	-007	5
8008	ENSMUSGCVps16	80743	00727717500156522501125	-02025	5
8009	ENSMUSGCVps18	228545	012066166-00329155-00075	-024	5
8015	ENSMUSGCVps29	56433	-00214788-01103763021	-01475	5
8016	ENSMUSGCVps33a	75753	012830082-00240442-00025	-01775	5
8025	ENSMUSGCVps39	269338	021545027000506144025	-01825	5
8026	ENSMUSGCVps41	218035	005424869-0120323302625	-045	5
8030	ENSMUSGCVps50	73288	009606947006113102-0015	-018	5
8040	ENSMUSGCVsn1	26950	-00472816-022613860135	-013	5
8044	ENSMUSGCVta1	66201	000285243-02418810-11775e-1	-02375	5
8075	ENSMUSGCVdr1	22388	01305429C-0112690801875	-0405	5
8078	ENSMUSGCVdr13	73447	017832108005405099-002	-0155	5
8094	ENSMUSGCVdr45	54636	016096236-00261184006	-055	5
8098	ENSMUSGCVdr48	67561	0073866470044033010085	-00975	5
8110	ENSMUSGCVdr91	101240	00884747C013510150004	-0455	5
8117	ENSMUSGCVipi1	52639	000224496-027138610135	-046	5
8125	ENSMUSGCVsb2	59043	009152273-0115760902225	-012	5
8141	ENSMUSGCVxnppep3	321003	01191476801385954500675	-045	5
8142	ENSMUSGCVxpo1	103573	0024273210278770730195	-02975	5
8146	ENSMUSGCVxpo7	65246	002202238-00171155002	-014	5
8205	ENSMUSGCVz3h12b	547176	0065594940147432340065	-02925	5
8229	ENSMUSGCVzdhc6	66980	-0121986401105840303825	-02925	5
8249	ENSMUSGCVzp385a	29813	-01142762-0242814202875	-018	5
8253	ENSMUSGCVzp532	328977	-00473450-01217689009	-0145	5
8257	ENSMUSGCVzfr	22763	017511137003208942003	-034	5
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8280	ENSMUSGCVzmynd8	228880	03083318600766283701725	-00775	5
8292	ENSMUSGCVzyl1b	414872	01280875C-004838000825	-02	5
3211	ENSMUSGCHvj	68180	051611772-00865375522	-0095	6
5458	ENSMUSGCPradc1	73327	-01962099015909738339	-08325	6
5914	ENSMUSGCPrecq5	170472	01294275C01658469250775	-04625	6
6644	ENSMUSGCVslc35a2	22232	-024540600102151992955	-02225	6
4	ENSMUSG1500009L1	69784	010273324-0010749701825	-0225	7
13	ENSMUSG4933427D1	74477	014062691-00616856-02075	-02125	7
23	ENSMUSGAak1	269774	017650387011445598-015	-02875	7
30	ENSMUSGAasdhppt	67618	002326965005926445-033	-01625	7
31	ENSMUSGAass	30956	024091108-010991650-047	-02825	7
32	ENSMUSGAatf	56321	010211612-01637736-0415	-04375	7
46	ENSMUSGAbcb7	11306	-00148162005818450-006	-01325	7
60	ENSMUSGAbcf3	27406	006741708-0016549901925	-01325	7
64	ENSMUSGAbhd10	213012	-01693189-0125354301525	-009	7
65	ENSMUSGAbhd11	68758	-00306899-009528970-046	-0385	7
67	ENSMUSGAbhd14b	76491	018046397018588654-00225	-03125	7
82	ENSMUSGAbilm2	231148	-00530262-00434394-01875	-0105	7
101	ENSMUSGAcap2	78618	008076707014468179-033	-0465	7
107	ENSMUSGAcdb6	72482	-00151824-01430875-00085	-022	7
111	ENSMUSGAcin1	56215	003014848005355678-0205	-01725	7
114	ENSMUSGAcot2	11429	008685167-01457630-00825	-016	7
117	ENSMUSGAcot13	66834	000737957-02973141-01425	-009	7
128	ENSMUSGAcst2	264895	003488728-01048206-00825	-045	7
129	ENSMUSGAcst3	257633	003101171-02359988-0135	-02425	7
155	ENSMUSGAcyl1	109652	-02017787-02213756-0185	-016	7
164	ENSMUSGAdam17	11491	-00289995018389893-03475	-00725	7
200	ENSMUSGAdhfe1	76187	014767316-02016225-01025	-015	7
217	ENSMUSGAdsl	11564	000788305-01415341-0075	-02175	7
235	ENSMUSGAgf2	231801	008717303-00360719-0245	-01225	7
238	ENSMUSGAgfo1	236511	008118524-00646032-02525	-0055	7
252	ENSMUSGAgfey2	74340	011821407-01256616-0245	-0595	7
257	ENSMUSGAgfhs1	217377	013631992-012667240-01525	-02	7
260	ENSMUSGAlf1	11629	010890417-01482360-03125	-013	7
263	ENSMUSGAlfm3	72168	029976856000779656-02225	-01775	7
280	ENSMUSGAlkap5	238276	-00691714-0169443-04575	-025	7
284	ENSMUSGAlkap8l	54194	026004568018915187-02525	-02675	7
286	ENSMUSGAlkra1a1	58810	-00085036-01568925-01275	-012	7
289	ENSMUSGAlkt1	11651	009403226000732341-00325	-01925	7
294	ENSMUSGAlad	17025	-00249486-00975979-01725	-01475	7
306	ENSMUSGAlhd3b1	67689	-00489262-03659700-0105	-05575	7
307	ENSMUSGAlhd4a1	212647	002078183-01258685-0215	-01775	7
327	ENSMUSGAlkbh8	67667	013668004008300402-01825	-039	7
343	ENSMUSGAlmpd2	109674	010142774002440484-00625	-041	7
344	ENSMUSGAlmpd3	11717	000392037-01228773-00875	-03825	7
345	ENSMUSGAlmph	218038	021936717-00293607-03825	-0095	7
349	ENSMUSGAnapc13	69010	-00156268-03294356-02975	-0495	7
350	ENSMUSGAnapc16	52717	006498714-01721547-04725	-01475	7
355	ENSMUSGAngel2	52477	003882188008084925-01175	-02425	7
372	ENSMUSGAnkrd29	225187	007638645-00699949-028	-0465	7
373	ENSMUSGAnkrd33b	67434	008226492013701551-0315	-02925	7



392	ENSMUSGcAno6	105722	005372902025346270	-013	-023	7	
402	ENSMUSGcAnxa2	12306	-00094612	017941971	-0105	-02225	7
404	ENSMUSGcAnxa4	11746	018028683035243582	-019	-0545	7	
406	ENSMUSGcAnxa6	11749	-00438925	-02076014	-03025	-00475	7
407	ENSMUSGcAnxa7	11750	008377935009596112	-00775	-03825	7	
427	ENSMUSGcAp4b1	67489	024897467	-02937817	-032	-0185	7
462	ENSMUSGcAppl2	216190	008486394001842166	-01075	-04775	7	
468	ENSMUSGcAqr	11834	015648811002544867	-0215	-018	7	
470	ENSMUSGcArap1	69710	-00930404	-01268215	-01875	-007	7
481	ENSMUSGcArtgap2	77038	005227726000335686	-01	-01975	7	
482	ENSMUSGcArtgap3	66251	-00059574	-01919934	-038	-00775	7
499	ENSMUSGcArtgap25	232201	026921865	-02302327	-02575	-019	7
512	ENSMUSGcArhgdia	192662	007845586	-01567678	-01775	-007	7
516	ENSMUSGcArthgef10l	72754	006975037005922181	-02125	-0085	7	
518	ENSMUSGcArthgef12	69632	002551132	-02687201	-02025	-01625	7
519	ENSMUSGcArthgef17	207212	007923567018340175	-01125	-03625	7	
528	ENSMUSGcArthgef6	73341	000793223	-00070547	-006	-016	7
536	ENSMUSGcArthl1	23806	008370432006132680	-012	-01475	7	
557	ENSMUSGcArmcc8	74125	008745879	-00975708	-0225	-0145	7
568	ENSMUSGcArpc3	56378	-00451632	-01937865	-0115	-0115	7
600	ENSMUSGcAsl	109900	018926168	-01446936	-01325	-01225	7
619	ENSMUSGcAtg101	68118	005369487	-00989776	-02825	-00775	7
660	ENSMUSGcAtp5f1d	66043	000997363	-02165093	-01425	-0505	7
667	ENSMUSGcAtp5fb	11950	002648077	-02517480	-008	-02425	7
670	ENSMUSGcAtp5po	28080	008301721	-00987087	-00825	-01175	7
680	ENSMUSGcAtp6v1d	73834	-01079604	-01170638	-00575	-01625	7
691	ENSMUSGcAtpaf1	230649	-01244684	-00972439	-0125	-015	7
697	ENSMUSGcAtrx	22589	-00812676	009585005	-038	-00725	7
705	ENSMUSGcAuh	11992	007838002	-01437561	-01625	-033	7
710	ENSMUSGcAW209491	105351	012748634	-00971145	-0405	-026	7
725	ENSMUSGcB630019Kc	102941	000440589	-00813690	-01425	-0085	7
732	ENSMUSGcBag1	12017	005220668	-01590721	-01425	-021	7
733	ENSMUSGcBag2	213539	-00195220	-01513442	-027	-0125	7
737	ENSMUSGcBag6	224727	017124837	-00629772	-01725	-0255	7
741	ENSMUSGcBanf1	23825	-00724674	-01765423	-0075	-0385	7
743	ENSMUSGcBax	12028	-00136596	000451096	-01325	-014	7
744	ENSMUSGcBaz1b	22385	020279892016903159	-0105	-0325	7	
747	ENSMUSGcBbs1	52028	020091916	-00050388	-00725	-01725	7
760	ENSMUSGcBcas1	76960	-01059750	-02541770	-039	-037	7
761	ENSMUSGcBcas2	68183	-00185703	-00154896	-01075	-01025	7
762	ENSMUSGcBcas3	192197	003981314	-00757281	-007	-014	7
774	ENSMUSGcBcl2l13	94044	00648778C	-00688096	-01	-03125	7
777	ENSMUSGcBclaf1	72567	007644994011982070	-029	-024	7	
779	ENSMUSGcBcs1f	66821	00588339	-01461105	-00525	-0245	7
793	ENSMUSGcBbn1	30948	00372028	-00129991	-009	-03275	7
810	ENSMUSGcBbm1	213895	022846341014857313	-0455	-02125	7	
833	ENSMUSGcBbrf	109880	-00073847	006801681	-00475	-0215	7
840	ENSMUSGcBrd4	57261	-00951045	007460678	-023	-032	7
841	ENSMUSGcBrd7	26992	012761924	-00048679	-01025	-021	7
875	ENSMUSGcC030006K1	223665	-00530719	-01124452	-0395	-0095	7
878	ENSMUSGcC1qbp	12261	-00603041	-00933073	-01875	-03125	7
891	ENSMUSGcCab39l	69008	006371295	-00378421	-03425	-03125	7
910	ENSMUSGcCacnb2	12296	009112267	027102537	-018	-0255	7
911	ENSMUSGcCacnb3	12297	01818276C	004787714	-012	-01075	7
927	ENSMUSGcCadps2	320405	039423565	009935294	-0275	-047	7
930	ENSMUSGcCalccoc1	67488	004001858	-00349216	-048	-00975	7
939	ENSMUSGcCamk1d	227541	002051752	-00468347	-003	-02075	7
945	ENSMUSGcCamk2n1	66259	014001181	-00560457	-015	-0195	7
946	ENSMUSGcCamk4	12326	-00285875	-02104358	-0055	-02	7
947	ENSMUSGcCamk1k1	55984	003931163	-00099601	-0315	-03025	7
962	ENSMUSGcCapg	12332	-01944552	-02350314	-04175	-0295	7
974	ENSMUSGcCarhsp1	52502	-00029594	-01843916	-03475	-043	7
981	ENSMUSGcCars2	71941	014508178	-00624549	-03325	-04075	7
992	ENSMUSGcCasp8	12370	-00733357	018818410	-0165	-012	7
1004	ENSMUSGcCbl	12402	01690538C	009485824	-028	-017	7
1012	ENSMUSGcCbr4	234309	008254614	-01163873	-0115	-0365	7
1026	ENSMUSGcCcdd115	69668	-00381573	-01434523	-0145	-0215	7
1030	ENSMUSGcCcdd127	67433	-00888665	002207814	-01375	-014	7
1033	ENSMUSGcCcdd137	67291	012239244	-00370169	-01575	-00725	7
1037	ENSMUSGcCcdd177	380768	032818694	008593181	-0305	-01875	7
1049	ENSMUSGcCcdd51	66658	02136684C	011201057	-03875	-0395	7
1058	ENSMUSGcCcdd90b	66365	008809348	-01151701	-01075	-01125	7
1061	ENSMUSGcCcdd92b	432582	007225236	005102673	-04275	-02075	7
1066	ENSMUSGcCcm2	216527	00126616C	-01269126	-0285	-0235	7
1073	ENSMUSGcCcny	67974	012940305	005977400	-01475	-0085	7
1078	ENSMUSGcCcser1	232035	01668293C	016578836	-02525	-03475	7
1108	ENSMUSGcCda	72269	002395375	-02371678	-013	-05025	7
1109	ENSMUSGcCdc123	98828	00172525C	-00706618	-0235	-0355	7
1112	ENSMUSGcCdc26	66440	-00245983	-00584606	-02425	-00075	7
1117	ENSMUSGcCdc40	71713	005579206	003782248	-013	-0135	7
1148	ENSMUSGcCdk17	237459	00736856C	-00156620	-022	-003	7
1149	ENSMUSGcCdk18	18557	-00100175	-00553328	-0205	-00525	7
1161	ENSMUSGcCdk15	382253	000400647	-00692120	-01275	-01325	7
1164	ENSMUSGcCdkn2c	12580	-00481821	-02024212	-0115	-016	7
1181	ENSMUSGcCenpv	73139	008058807	-01411309	-02875	-0465	7
1182	ENSMUSGcCep112	76380	00567572C	-01739365	-027	-021	7
1185	ENSMUSGcCep135	381644	007850844019586100	-016	-02825	7	
1197	ENSMUSGcCetn2	26370	005919503	-01461521	-01475	-01025	7
1216	ENSMUSGcChamp1	101994	011714817	-00967284	-01925	-00725	7
1242	ENSMUSGcChm	12662	-00737486	002265218	-00875	-015	7
1245	ENSMUSGcChmp1b2	67028	006835672	-01804642	-0235	-00475	7
1248	ENSMUSGcChmp3	66700	00515470C	-01348041	-0235	-02125	7
1250	ENSMUSGcChmp5	76959	005786245	-01910786	-032	-00425	7
1257	ENSMUSGcChpf	74241	-00290517	025198696	-03625	-02375	7
1268	ENSMUSGcChtpo	66511	00061723C	-01026142	-015	-0485	7
1272	ENSMUSGcCiao2b	68523	-00889519	-02235787	-02	-0175	7
1275	ENSMUSGcCib1	23991	014521113	-01943848	-03825	-04175	7
1278	ENSMUSGcCirbp	12696	-02748732	-01292517	-03525	-03475	7
1286	ENSMUSGcCkb	12709	003710995	-02402901	-00525	-02025	7
1289	ENSMUSGcClasp2	76499	007698783	-00901210	-04025	-0155	7
1324	ENSMUSGcClpp	53895	006129706	-00626444	-019	-02175	7
1338	ENSMUSGcClybl	69634	001259593	-02181664	-01275	-017	7
1342	ENSMUSGcCmc2	66531	005176988	-01589028	-022	-00875	7
1344	ENSMUSGcCmip	74440	026541325	009380094	-00325	-02825	7
1345	ENSMUSGcCmpk1	66688	000604777	-00260256	-0155	-017	7
1346	ENSMUSGcCmpk2	22168	-01343790	-04118136	-02075	-01375	7
1374	ENSMUSGcCnp	12799	003155144	-02127011	-022	-05825	7
1380	ENSMUSGcCnst	226744	-00790526	004264424	-01525	-0295	7
1400	ENSMUSGcCoasy	71743	017863641	-00419053	-006	-05	7
1428	ENSMUSGcCommdd1	17846	005546513	-02740254	-034	-02325	7
1451	ENSMUSGcCops7a	26894	001010942	-02215015	-038	-008	7
1461	ENSMUSGcCoq5	52064	007566602	-01044610	-0135	-0275	7
1463	ENSMUSGcCoq7	12850	-00151283	-01492745	-0445	-04875	7
1466	ENSMUSGcCoq9	67914	009137958	-00719820	-02275	-0435	7
1467	ENSMUSGcCoro1a	12721	-00001375	-01949406	-00675	-02325	7
1471	ENSMUSGcCoro2b	235431	004053651	-01552333	-014	-025	7
1472	ENSMUSGcCoro6	216961	040863152000854000	-01275	-04275	7	
1479	ENSMUSGcCox17	12856	-00379797	-02001669	-028	-00625	7
1489	ENSMUSGcCox6b1	110323	-00168863	-02862519	-01025	-04025	7
1493	ENSMUSGcCox7a2l	20463	004756525	-01238731	-0145	-038	7
1501	ENSMUSGcCplx1	12889	008043224	-01513208	-0215	-01625	7
1502	ENSMUSGcCplx2	12890	004105364	-00455750	-02875	-00925	7
1512	ENSMUSGcCpne9	211232	01888737C	-01031012	-014	-02975	7
1524	ENSMUSGcCpt2	12896	007146671	-01634852	-01075	-03925	7
1545	ENSMUSGcCrk	12928	009599071	-00317469	-02725	-027	7
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1552	ENSMUSGcCrocc2	381284	063943025004720827-05175	-05825	7
1556	ENSMUSGcCrtc1	382056	012626672004315551-01325	-00725	7
1558	ENSMUSGcCrtc3	70461	004116098000424426-0275	-03975	7
1566	ENSMUSGcCryz1	66609	002170292-011407981-01925	-03525	7
1569	ENSMUSGcCsad	246277	018157827-000427871-01375	-01075	7
1590	ENSMUSGcCsrp1	13007	014925095-015457691-01275	-02825	7
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1600	ENSMUSGcCtbp2	13017	018237148011426083-03	-0265	7
1608	ENSMUSGcCtdspl2	329506	006513314023130266-032	-051	7
1615	ENSMUSGcCtnnbip1	67087	004771652-00467378-01125	-00825	7
1630	ENSMUSGcCtss	13040	-01784959 002276701-0155	-0325	7
1642	ENSMUSGcCui4b	72584	004649335002169511-0235	-0105	7
1652	ENSMUSGcCwc27	67285	009912344-01186517-03525	-006	7
1654	ENSMUSGcCx3cr1	13051	-01266929 027651925-03	-0135	7
1663	ENSMUSGcCyb5r2	192985	-01279843 000163748-0235	-045	7
1669	ENSMUSGcCyvs	13063	002403322-020132760-021	-042	7
1691	ENSMUSGcCzib	74098	-01264509 -00083283-0245	-03	7
1695	ENSMUSGcD3ertd751	73852	-00349240 -01848143-0215	-01725	7
1698	ENSMUSGcD6wsu163	28040	023043895006802884-00975	-01675	7
1713	ENSMUSGcDap3	65111	007312158-00958475-0095	-017	7
1715	ENSMUSGcDapk3	13144	017411595000853435-02375	-02725	7
1722	ENSMUSGcDbn1	56320	008519528-000851460-02325	-0135	7
1726	ENSMUSGcDbr1	83703	000136233001231462-0285	-00225	7
1727	ENSMUSGcDbr2	13171	011236189-003497901-01275	-0335	7
1742	ENSMUSGcDcp1a	75901	-00512373 013586630-01025	-0175	7
1757	ENSMUSGcDcun1d5	76863	-00071924 008638686-03225	-00975	7
1759	ENSMUSGcDcwr	67880	011201645-01344904-04075	-00675	7
1766	ENSMUSGcDdhd2	72108	-00199257 -001302600-0455	-02625	7
1767	ENSMUSGcDdl2	68817	006606666006190932-00625	-0155	7
1777	ENSMUSGcDdx19a	13680	006016482-00346652-02625	-0125	7
1780	ENSMUSGcDdx21	56200	015074169003847571-02325	-021	7
1782	ENSMUSGcDdx24	27225	-01181219-00450552-03325	-00925	7
1791	ENSMUSGcDdx46	212880	008115832-003324031-0205	-005	7
1793	ENSMUSGcDdx5	13207	-00616430 016528987-0135	-01975	7
1795	ENSMUSGcDdx51	69663	010254078-00442235-0065	-0115	7
1797	ENSMUSGcDdx54	71990	014217033-005533811-0285	-0205	7
1798	ENSMUSGcDdx55	67848	008718757-00329998-0515	-01825	7
1799	ENSMUSGcDdx56	52513	003867580-00971907-04375	-0665	7
1801	ENSMUSGcDecr1	67460	005118455-024394291-02075	-00375	7
1808	ENSMUSGcDennd11	243780	-00204386 -01086384-0215	-0265	7
1811	ENSMUSGcDennd2a	209773	010969299-00505459-03175	-053	7
1813	ENSMUSGcDennd4b	229541	018520960101957994-0115	-02225	7
1818	ENSMUSGcDennd6b	69440	004098543012678147-00875	-03075	7
1826	ENSMUSGcDesi1	28075	-00752469 -02561542-0255	-02075	7
1828	ENSMUSGcDgat1	13350	-01353060 -002003951-01525	-00625	7
1830	ENSMUSGcDger8	94223	02357980011700668-021	-02875	7
1836	ENSMUSGcDgk1	320127	-01037474 -021791871-015	-01725	7
1846	ENSMUSGcDhodh	56749	009979543018842609-01425	-04175	7
1851	ENSMUSGcDhrs4	28200	012108932-02331782-00875	-01725	7
1867	ENSMUSGcDiaph1	13367	004313444003464904-0165	-02475	7
1874	ENSMUSGcDip2c	208440	009640788-002543001-01125	-00825	7
1885	ENSMUSGcDlat	235339	009073231-01285466-017	-01275	7
1886	ENSMUSGcDlc1	50768	005481506-002012160-0165	-0305	7
1887	ENSMUSGcDld	13382	009081269-00675543-028	-0245	7
1894	ENSMUSGcDlgap2	244310	010279602-018272081-01075	-031	7
1899	ENSMUSGcDmac2	66349	008802997007088658-02725	-04325	7
1909	ENSMUSGcDnaaf9	228602	004378292-023818201-0115	-017	7
1914	ENSMUSGcDnaja4	58233	013981472-002185801-02925	-0005	7
1922	ENSMUSGcDnajb6	23950	004550075-01215167-0235	-0295	7
1962	ENSMUSGcDock1	330662	017625002-00208255-01875	-0365	7
1970	ENSMUSGcDock7	67299	003886848-00183047-02	-00725	7
2000	ENSMUSGcDpy1914	381510	-01903058 004108121-025	-0155	7
2036	ENSMUSGcDut	110074	-00006822-02344479-03725	-012	7
2039	ENSMUSGcDvl3	13544	009190535-001825041-014	-01725	7
2061	ENSMUSGcEars2	67417	011524634-00436821-01075	-013	7
2063	ENSMUSGcEbn1bp2	69072	009636893-00550958-029	-051	7
2073	ENSMUSGcEchs1	93747	005623395-017183511-0075	-03475	7
2099	ENSMUSGcEfhdl	98363	008909055-029225801-05	-011	7
2107	ENSMUSGcEfr3a	76740	016459463-000957361-0055	-03	7
2113	ENSMUSGcEgr3	13655	007071983-00816202-0315	-0325	7
2158	ENSMUSGcElf4a3	192170	006334371-009083091-025	-04375	7
2178	ENSMUSGcElavl1	15568	006093004000258017-0085	-04775	7
2181	ENSMUSGcElavl4	15572	-00391576 -00169008-026	-0085	7
2182	ENSMUSGcElfn1	243312	-00806407 014015805-0175	-00725	7
2184	ENSMUSGcElmo1	140580	-00870131-009317121-018	-015	7
2211	ENSMUSGcEmg1	14791	008755762006425306-0305	-02625	7
2215	ENSMUSGcEmi3	225898	008763396021203255-029	-026	7
2217	ENSMUSGcEmi5	319670	-00996887 003132885-02025	-0235	7
2230	ENSMUSGcEno2	13807	005148166-00429988-00875	-0175	7
2249	ENSMUSGcEpb41	269587	-00392938 004386329-01725	-04125	7
2252	ENSMUSGcEpb41i3	13823	-02830574-00634193-03075	-03375	7
2273	ENSMUSGcEpn1	13854	019037121001645821-0285	-04425	7
2278	ENSMUSGcEps151	13859	016469225007019803-014	-026	7
2285	ENSMUSGcErbin	59079	-00866939 -01193176-03425	-00675	7
2286	ENSMUSGcErc1	111173	016897932003144728-0045	-04275	7
2301	ENSMUSGcErnm	77767	-01137657 -019764071-03925	-049	7
2313	ENSMUSGcEtf1a	110842	001092236-027114891-03375	-01425	7
2314	ENSMUSGcEtfb	110826	008078019-022360661-00925	-02375	7
2315	ENSMUSGcEtfdh	66841	009428718-027005731-0135	-02325	7
2317	ENSMUSGcEtl4	208618	006861201012651555-01575	-01025	7
2322	ENSMUSGcEvl5	14020	003035366000455329-04525	-01575	7
2358	ENSMUSGcFabp3	14077	-00526063-017585721-00275	-051	7
2368	ENSMUSGcFah	14085	005800736-016852231-00425	-026	7
2377	ENSMUSGcFam114a2	67726	011413350007354788-0245	-0155	7
2381	ENSMUSGcFam120b	67544	007341708013997798-04025	-0105	7
2384	ENSMUSGcFam131a	78408	005504373-02188880-04	-04925	7
2385	ENSMUSGcFam131b	76156	004328976-00825795-01475	-01625	7
2386	ENSMUSGcFam135a	68187	-01593760 008762503-0275	-044	7
2401	ENSMUSGcFam193a	231128	002977501-00177485-0395	-05225	7
2405	ENSMUSGcFam210b	67017	-00480800-033824461-00975	-03375	7
2429	ENSMUSGcFastkd5	380601	-02779843-04510779-0275	-032	7
2447	ENSMUSGcFbx4	269514	-00062058 010913160-023	-01225	7
2466	ENSMUSGcFbxw2	30050	004774981-00942816-0365	-0355	7
2482	ENSMUSGcFdxr	14149	003621828-007080361-03475	-0195	7
2483	ENSMUSGcFech	14151	001696828-013054641-0065	-04175	7
2489	ENSMUSGcFex1	235180	003221491-007978091-02625	-00175	7
2499	ENSMUSGcFgfr1op2	67529	002805467004942770-00875	-012	7
2517	ENSMUSGcFrs1	66437	-00107034-020621101-03575	-02225	7
2544	ENSMUSGcFmm1	57778	018452020-002127871-01925	-02475	7
2546	ENSMUSGcFmm3	22379	-00011843 031493129-0255	-03225	7
2551	ENSMUSGcFn3k	63828	-01025602-01494984-021	-03625	7
2553	ENSMUSGcFnbp1	14269	-00258242-02184636-03925	-01275	7
2564	ENSMUSGcFogx1	15228	004416005019248162-041	-03325	7
2595	ENSMUSGcFtsj3	56095	0176891260054217991-008	-0225	7
2599	ENSMUSGcFundc1	72018	001733292-01230133-014	-0135	7
2601	ENSMUSGcFuom	69064	-00221861-009863311-033	-013	7
2607	ENSMUSGcFxn	14297	011399894-014756701-0045	-05	7
2614	ENSMUSGcFyn	14360	-00028835-013909211-013	-0255	7
2615	ENSMUSGcFytd1	69823	-00028511-00117122-023	-05125	7
2624	ENSMUSGcGab1	14388	-01582396-001262531-0265	-0205	7
2639	ENSMUSGcGabbrd	14403	-03257159-009632951-03025	-0465	7
2652	ENSMUSGcGalm	319625	008420336014785816-00575	-03675	7
2665	ENSMUSGcGap43	14432	-00338438-01806196-028	-01475	7
2672	ENSMUSGcGars1	353172	009285750-012523791-00425	-0165	7
2694	ENSMUSGcGcat	26912	016023371-012629251-01725	-02	7
2701	ENSMUSGcGcsh	68133	001354139-024079131-01675	-014	7



2731	ENSMUSGcGga3	260302	024836613	007405002	-00725	-01625	7
2751	ENSMUSGcGjb6	14623	018418857	026326566	-01725	-0285	7
2772	ENSMUSGcGlr2	69367	004693458	-00010099	-0285	-01375	7
2781	ENSMUSGcGlyr1	74022	015858144	000834293	-0255	-02325	7
2798	ENSMUSGcGna12	14673	009737112	-01437523	-039	-01	7
2811	ENSMUSGcGnb5	14697	-00628727	-01416883	-00925	-0165	7
2813	ENSMUSGcGng10	14700	00286263	-01432419	-0285	-04125	7
2815	ENSMUSGcGng12	14701	012862452	-01161127	-0175	-01575	7
2822	ENSMUSGcGnl1	14670	011618618	-00455660	-00875	-02525	7
2824	ENSMUSGcGnl3l	237107	002742862	-01442571	-01575	-0065	7
2842	ENSMUSGcGolp3l	229593	010720648	-00030264	-00425	-0145	7
2851	ENSMUSGcGot2	14719	002195385	-01249542	-00525	-01775	7
2858	ENSMUSGcGpatch2l	70373	001357335	-00191677	-02825	-005	7
2866	ENSMUSGcGpd1	14555	020421265	003255028	-02475	-0145	7
2868	ENSMUSGcGpd2	14571	013608815	000667865	-014	-0325	7
2878	ENSMUSGcGpr162	14788	-00705057	011232547	-04325	-014	7
2911	ENSMUSGcGrhrp	76238	008765444	-02496272	-0155	-048	7
2928	ENSMUSGcGrip2	243547	020113852	007464758	-01125	-01925	7
2929	ENSMUSGcGripap1	54645	018670320	-00199884	-01925	-01475	7
2935	ENSMUSGcGrm3	108069	-01010135	-02485032	-016	-02575	7
2945	ENSMUSGcGrtp1	66790	001695223	-02070563	-01625	-0105	7
2979	ENSMUSGcGtf2h4	14885	014861186	002288273	-0325	-00975	7
2991	ENSMUSGcGtbp4	69237	018635353	002847623	-02125	-027	7
2993	ENSMUSGcGtbp8	66067	001155434	008693135	-027	-03275	7
3006	ENSMUSGcH2ax	15270	-01343886	006164799	-04525	-0165	7
3008	ENSMUSGcH2bc15	319187	-02452626	-06635984	-03325	-01175	7
3018	ENSMUSGcHadh	15107	003600003	-02198925	-01075	-01575	7
3052	ENSMUSGcHddc3	68695	004572055	-01700578	-04375	-021	7
3056	ENSMUSGcHddh2	76987	005079383	-01978644	-01825	-00625	7
3057	ENSMUSGcHddh3	72748	008652755	-01549464	-0185	-0475	7
3058	ENSMUSGcHddh5	214932	008928725	009418389	-017	-02	7
3090	ENSMUSGcHibch	227095	010628027	-01349760	-01725	-013	7
3096	ENSMUSGcHint2	68917	-005437779	-01434734	-0185	-02375	7
3102	ENSMUSGcHk1	15275	00545777C	-00632932	-02625	00025	7
3103	ENSMUSGcHk2	15277	021536853	018370205	-0385	-015	7
3104	ENSMUSGcHkdc1	216019	014971854	004506638	-02425	-01725	7
3109	ENSMUSGcHmg20a	66867	010721762	-00137525	-02025	-0115	7
3114	ENSMUSGcHmgcl	15356	010162335	-00031132	-0145	-009	7
3124	ENSMUSGcHmox2	15369	-00235993	-01731334	-0055	-0185	7
3126	ENSMUSGcHnnpa0	77134	-00757356	-00751088	-006	-0315	7
3131	ENSMUSGcHnnpcc	15381	00848536C	-01001578	-01725	-04575	7
3137	ENSMUSGcHnnp3	432467	010449617	-01117558	-00875	-05425	7
3141	ENSMUSGcHnnpm	76936	012647698	003615563	-00425	-0205	7
3143	ENSMUSGcHnnpu	51810	-00509636	005042295	-02025	-03375	7
3145	ENSMUSGcHnnpul2	68693	009358975	-00739938	-02725	-05725	7
3146	ENSMUSGcHomer1	26556	003895664	-00064428	-014	-0195	7
3147	ENSMUSGcHomer2	26557	023606678	017798509	-01325	-04475	7
3148	ENSMUSGcHomer3	26558	004714542	002390728	-015	-05475	7
3175	ENSMUSGcHsd17b8	14979	-02510480	-04943879	-00875	-014	7
3192	ENSMUSGcHspa9	15526	011801091	-01586965	-02325	-00775	7
3194	ENSMUSGcHspb8	80888	010893057	-02098369	-047	-0435	7
3197	ENSMUSGcHspe1	15528	-00168793	-02048700	-02	-04575	7
3208	ENSMUSGcHtra2	64704	001569671	-00129368	-0055	-01525	7
3209	ENSMUSGcHtt	15194	01081147C	006371787	-0075	-02225	7
3215	ENSMUSGcIah1	67732	001322173	-00259482	-016	-02675	7
3217	ENSMUSGcIars2	381314	006682464	000397116	-02575	-03825	7
3227	ENSMUSGcIdh3a	67834	000411195	-02026621	-00625	-03575	7
3228	ENSMUSGcIdh3b	170718	006091375	-01835122	-0075	-02575	7
3242	ENSMUSGcIfs2	245866	-00198427	-02098242	-03475	-02925	7
3243	ENSMUSGcIfs2	73916	006022623	-01238622	-02975	-007	7
3249	ENSMUSGcIgdcc4	56741	-00243808	002394747	-0355	-0355	7
3267	ENSMUSGcIgtp	16145	-02752486	-00008824	-028	-0265	7
3268	ENSMUSGcIk	24010	01031046C	-00087954	-02475	-05575	7
3270	ENSMUSGcIkblg	16151	010653965	002839522	-01525	-01475	7
3273	ENSMUSGcIl18	16173	011689434	-01325331	-01425	-021	7
3287	ENSMUSGcImmt	76614	016555015	-01331609	-041	-03225	7
3293	ENSMUSGcImpdh2	23918	012023347	007034347	-00525	-013	7
3294	ENSMUSGcIna	226180	004849243	-01899128	-02925	-05375	7
3296	ENSMUSGcInf2	70435	-00676397	-02011679	-02925	-01275	7
3299	ENSMUSGcInpp1	16329	-00475284	-00293769	-02025	-04525	7
3302	ENSMUSGcInpp5a	212111	-00053947	-01591839	-0065	-0195	7
3315	ENSMUSGcInts10	70885	009511027	017970550	-0185	-027	7
3317	ENSMUSGcInts12	71793	006339853	016627707	-046	-0275	7
3322	ENSMUSGcInts3	229543	021364697	009368793	-02975	-02725	7
3330	ENSMUSGcIpcf1	320495	016703134	-01308619	-00525	-03475	7
3336	ENSMUSGcIppb8	320727	013330595	-00537511	-01175	-01825	7
3345	ENSMUSGcIreb2	64602	008184174	009543956	-0145	-01325	7
3352	ENSMUSGcIrcs1	16367	005161196	010186728	-01825	-0075	7
3355	ENSMUSGcIrsa2	74316	-00047498	-00602040	-02725	-01825	7
3385	ENSMUSGcIth3	16426	-00826386	-00024488	-02425	-0385	7
3393	ENSMUSGcItpka	228550	01168470C	005260835	-02325	-0385	7
3403	ENSMUSGcIws1	73473	009830706	01077073	-04025	-01925	7
3405	ENSMUSGcIak1	16451	011688246	000591255	-02325	-00675	7
3406	ENSMUSGcIak2	16452	013059905	005531086	-01775	-0115	7
3418	ENSMUSGcIph3	57340	015422505	010963700	-0025	-0275	7
3425	ENSMUSGcJup	16480	003346073	-01009320	-01125	-01925	7
3434	ENSMUSGcKat7	217127	00745187C	004049405	-0215	-034	7
3438	ENSMUSGcKbtbd11	74901	014503948	-00746078	-0245	-0245	7
3445	ENSMUSGcKcna2	16490	-00356479	001576333	-01225	-02475	7
3450	ENSMUSGcKcnab2	16498	015897593	009731980	-0135	-04125	7
3472	ENSMUSGcKcnp10	16513	00735466C	-02045252	-03325	-03025	7
3492	ENSMUSGcKcnt1	227632	004631655	012285645	-03	-0235	7
3501	ENSMUSGcKctd17	72844	-00211863	-00747167	-03675	-00825	7
3523	ENSMUSGcKhk	16548	-00042034	-00194062	-01125	-0545	7
3537	ENSMUSGcKif3b	16569	023150396	001665460	-0365	-009	7
3551	ENSMUSGcKic2	16594	012795254	-01538318	-02575	-0105	7
3569	ENSMUSGcKihl42	232539	006760075	011064772	-034	-0385	7
3571	ENSMUSGcKihl8	246293	016765972	006127107	-0355	-0315	7
3588	ENSMUSGcKsr1	16706	03784838C	026577397	-03025	-024	7
3592	ENSMUSGcKxd1	75620	-00303618	-01817589	-00425	-0315	7
3593	ENSMUSGcKyat1	70266	00985505C	-00083309	-00475	-04175	7
3594	ENSMUSGcKyat3	229905	01146125C	-00747484	-01925	-04825	7
3596	ENSMUSGcL2hgdh	217666	021425338	003448226	-01275	-04425	7
3597	ENSMUSGcL3hyphd	67217	-00604766	024695472	-0325	-0415	7
3636	ENSMUSGcLcmt1	30949	010860331	-01366018	-00675	-01475	7
3641	ENSMUSGcLcmt1	16832	001857538	-02540529	-01325	-0115	7
3650	ENSMUSGcLcmt1	56384	003196916	-00417928	-00375	-01875	7
3676	ENSMUSGcLin7a	108030	022630978	002963014	-00675	-01075	7
3678	ENSMUSGcLin7c	22343	000145434	-00468062	-0305	-006	7
3684	ENSMUSGcLipe	16890	003786005	-00618428	-01025	-01525	7
3700	ENSMUSGcLmbb1	16906	007562845	-01831874	-01925	-03625	7
3701	ENSMUSGcLmbb2	16907	012307452	007652330	-03675	-049	7
3703	ENSMUSGcLmo7	380928	-02234171	009563764	-03675	-01475	7
3708	ENSMUSGcLonp1	74142	014490647	-01105842	-024	-0065	7
3711	ENSMUSGcLpar1	14745	-01730142	-02734099	-0225	-01375	7
3723	ENSMUSGcLrch1	380916	023563401	007189074	-005	-0275	7
3757	ENSMUSGcLrrc75a	192976	00211781C	-01358332	-0245	-062	7
3781	ENSMUSGcLsm3	66768	-00153591	-00122980	-00325	-035	7
3783	ENSMUSGcLsm5	66373	-00856868	003963651	-03075	-0195	7
3784	ENSMUSGcLsm6	78651	003045452	-01910455	-01075	-04875	7
3790	ENSMUSGcLta4h	16993	001972865	-00902590	-018	-0475	7
3828	ENSMUSGcLts3	241638	012830759	008371518	-0155	-01	7
3834	ENSMUSGcMacroh2a1	26914	-02159160	-01131781	-01375	-04	7
3869	ENSMUSGcMap1a	17754	002821504	009477635	-0425	-00975	7
3874	ENSMUSGcMap2	17756	00991853C	000593514	-047	-01175	7
3897	ENSMUSGcMap6	17670	010481654	-00959125	-0435	-00625	7



3905	ENSMUSGMapk11	19094	019932146-00454200-03825	-026	7
3934	ENSMUSGMars2	212679	-00501583-005209222-01325	-0115	7
3951	ENSMUSGMbd1	17190	010098995-006379902-0335	-04825	7
3966	ENSMUSGMccc2	78038	00456191C-02765257-009	-0145	7
3967	ENSMUSGMcee	73724	01210659C-01933499-0125	-02875	7
3968	ENSMUSGMcf2l	17207	02061859C-019325809-024	-016	7
3972	ENSMUSGMcm3ap	54387	030670142-013548442-0425	-0095	7
3987	ENSMUSGMdh1	17449	002513098-02293389-02425	-0115	7
3995	ENSMUSGMe2	107029	-01942745-02893590-0385	-00625	7
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3998	ENSMUSGMea6	70088	010545221-005129029-02875	-00225	7
4000	ENSMUSGMecp2	17257	009323026-001556040-0295	-03675	7
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4040	ENSMUSGMett1l6	67493	028887666-01172936-04425	-0325	7
4067	ENSMUSGMgl	23945	016741656-01045404-01075	-01175	7
4076	ENSMUSGMical2	320878	042419481-005403595-0375	-046	7
4079	ENSMUSGMicos10	433771	-00140901-020690620-023	-00525	7
4081	ENSMUSGMicu1	216001	-00628510-02024667-03	-00375	7
4083	ENSMUSGMicu3	78506	003524523-013672347-01925	-04275	7
4085	ENSMUSGMid2	23947	020211201-007921404-0135	-017	7
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4156	ENSMUSGMpv17	17527	008161734-01278755l-012	-017	7
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4165	ENSMUSGMrm3	67390	-00371477-05105426-02825	-03175	7
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4186	ENSMUSGMrpl3	94062	008292032-00946584l-005	-01475	7
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4197	ENSMUSGMrpl41	107733	008257617-00501743l-01375	-00825	7
4205	ENSMUSGMrpl49	18120	005948021-01492416-0095	-018	7
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4237	ENSMUSGMrps36	66128	010206592-01535149-01575	-016	7
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4250	ENSMUSGMsi2	76626	006627852-01457191l-00625	-034	7
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4292	ENSMUSGMtpap	67440	009847403-016528147-02475	-01425	7
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4320	ENSMUSGMyyef2	17876	000855668-000331701-01025	-026	7
4324	ENSMUSGMyyh14	71960	-00226737-02708347-00925	-0155	7
4331	ENSMUSGMyy16b	216459	007437675-02544688-03075	-013	7
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4418	ENSMUSGNcbp3	66874	010331317-005187644-02	-0215	7
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4445	ENSMUSGNdor1	78797	003546155-00405453-02275	-04575	7
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4461	ENSMUSGNdufa7	66416	-00194711-03265528-04275	-005	7
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4480	ENSMUSGNdufb6	230075	-00516559-02127550l-01325	-01825	7
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4492	ENSMUSGNdufb8	225887	-01102802-02897140-03825	-01	7
4493	ENSMUSGNdufv1	17995	008858731-01868307-008	-048	7
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4544	ENSMUSGNfs1	18041	003551874-01967948-0175	-006	7
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4571	ENSMUSGNlpsnap2	14467	000196465-01929941l-03375	-05075	7
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4614	ENSMUSGNop14	75416	016948375-00132578l-019	-044	7
4618	ENSMUSGNop56	67134	008547182-002413304-01025	-0335	7
4620	ENSMUSGNop9	67842	019097533l-011735780-01875	-0295	7
4630	ENSMUSGNova2	384569	016443295-001155442-03875	-005	7
4639	ENSMUSGNpl	74091	030819391-000989333-0025	-041	7
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4644	ENSMUSGNpr2	56032	004689147-00100888-0155	-01225	7
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4668	ENSMUSGNrip2	60345	012998194-00987721l-04575	-01475	7
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4686	ENSMUSGNsmaf	18201	012654324-004451994-0335	-031	7
4689	ENSMUSGNsrp1	237859	007992742-01088579-02225	-00275	7
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4693	ENSMUSGNt5c1a	230718	010627325-01200913-0075	-02625	7
4694	ENSMUSGNt5c2	76952	006894448-006792486-005	-039	7
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4743	ENSMUSGNumb	18222	012506626-00288643-024	-0145	7
4750	ENSMUSGNup188	227699	006751927-007401806-00525	-02475	7
4753	ENSMUSGNup214	227720	006426047-013239513-02125	-03975	7
4754	ENSMUSGNup35	69482	004194026-000735953-022	-0365	7
4755	ENSMUSGNup37	69736	013150258-010915086-02725	-03425	7
4756	ENSMUSGNup43	69912	010858921-013171977-008	-0355	7
4757	ENSMUSGNup50	18141	003421132-008428848-02475	-00825	7



4759	ENSMUSGcNup58	71844	012042714007519821-01025	-02675	7
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4844	ENSMUSGcOxid1	66431	-00637146-02944035-0375	-04075	7
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4859	ENSMUSGcPacsin1	23969	010917226-00675148-0155	-02575	7
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4863	ENSMUSGcPaf1	54624	003693742-00187255-01975	-0095	7
4865	ENSMUSGcPafah1b2	18475	001667057-0075998-0285	-0235	7
4872	ENSMUSGcPak1	18479	015481655-01079143-00725	-0155	7
4874	ENSMUSGcPak2	224105	01269657700070107-00775	-012	7
4891	ENSMUSGcPank1	75735	017480337-00728415-0455	-04025	7
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4962	ENSMUSGcPcdhgb6	93703	-02188327-002684189-025	-03025	7
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4973	ENSMUSGcPcmttd1	319263	-00298962-002969831-00475	-03675	7
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4998	ENSMUSGcPcdcd6ip	18571	006457735003092256-01875	-02075	7
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5116	ENSMUSGcPhactr2	215789	-00447534-02339652-034	-0125	7
5117	ENSMUSGcPhactr3	74189	016714178-00422416-023	-02725	7
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5143	ENSMUSGcPhldb1	102693	-02277482-01099195-02875	-00325	7
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5175	ENSMUSGcPik3c3	225326	023280833000735820-0115	-016	7
5196	ENSMUSGcPitpna	18738	004388806-01329163-013	-0175	7
5205	ENSMUSGcPkd2	18764	-00084004-010966427-00375	-0165	7
5207	ENSMUSGcPkib	18768	-01337291-02174405-04775	-03175	7
5209	ENSMUSGcPkm	18746	-00180875-02021837-00775	-052	7
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5224	ENSMUSGcPkc4	18798	003968275-006689609-003	-02225	7
5230	ENSMUSGcPich2	269615	032133341012768367-02075	-0395	7
5240	ENSMUSGcPlekha1	101476	967e-05-002487198-0205	-00525	7
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5245	ENSMUSGcPlekha1	27276	-00022670-02355693-02	-008	7
5255	ENSMUSGcPlgrkt	67759	-00842231-016282980-03725	-015	7
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5274	ENSMUSGcPls1	102502	-02021103-00474949-03	-045	7
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5302	ENSMUSGcPmma8a	71691	-00305862-000937991-00425	-0145	7
5330	ENSMUSGcPolr2a	20020	009238355015547526-01375	-02175	7
5331	ENSMUSGcPolr2b	231329	020876532001271874-024	-0285	7
5332	ENSMUSGcPolr2c	20021	-00214048-00409035-03225	-04425	7
5334	ENSMUSGcPolr2e	66420	-00046770-02112175-031	-021	7
5335	ENSMUSGcPolr2g	67710	004340098-00543855-00325	-04275	7
5336	ENSMUSGcPolr2h	245841	008126224-00771157-01525	-03425	7
5363	ENSMUSGcPpan	235036	-01298628-02272239-0425	-03325	7
5365	ENSMUSGcPpcdc	66812	-00119727-002915584-0165	-03625	7
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5374	ENSMUSGcPphn1	223828	-00614602-01262037-01025	-05325	7
5375	ENSMUSGcPpia	268373	-00197876-01811065-01	-036	7
5382	ENSMUSGcPpih	66101	006188683015992326-00525	-0195	7
5385	ENSMUSGcPpil3	70225	-00288340-00821385-0355	-022	7
5389	ENSMUSGcPpm1a	19042	009537336002031614-01325	-007	7
5390	ENSMUSGcPpm1b	19043	010322417-00931064-01075	-024	7
5412	ENSMUSGcPpp1r16a	73062	013746464007358933-00825	-03925	7
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5417	ENSMUSGcPpp1r2	66849	001557232-00325605-00525	-04625	7
5421	ENSMUSGcPpp1r3f	54646	011461095-01081082-038	-039	7
5422	ENSMUSGcPpp1r3g	76487	030840738-00189789-0125	-0235	7
5425	ENSMUSGcPpp1r9a	243725	-02002678-007658234-031	-01175	7
5440	ENSMUSGcPpp3ca	19055	00140343c-00204065-014	-02925	7
5451	ENSMUSGcPpp6r1	243819	024478062-001481231-01175	-01125	7
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5479	ENSMUSGcPrkaa1	105787	003924448002840343-016	-01225	7
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5515	ENSMUSGcProdh	19125	021223876001149609-0365	-03225	7
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5529	ENSMUSGcPrpf4b	19134	-00196944-029591328-01825	-0545	7
5557	ENSMUSGcPsd2	74002	014592138-02704543-00925	-0125	7
5563	ENSMUSGcPsm3a	19167	005133922-00345378-022	-0075	7
5565	ENSMUSGcPsm3a5	26442	00944963-01719188-00975	-02875	7
5602	ENSMUSGcPsmf1	228769	000113005-01027793-0325	-015	7
5615	ENSMUSGcPctc3	69595	014045056-00213199-0045	-0245	7
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5640	ENSMUSGcPtga	110854	012610815-00588618-006	-0445	7
5647	ENSMUSGcPtgn2	19255	003992192-00066233-03275	-0345	7
5648	ENSMUSGcPtgn23	104831	016436683-00784761-02	-024	7
5649	ENSMUSGcPtgn3	545622	019721967-00733216-00775	-03425	7
5670	ENSMUSGcPthr1	329384	015540782-00188025-02275	-03675	7
5678	ENSMUSGcPum3	52874	015158953-01295737-0115	-031	7
5707	ENSMUSGcQdpr	110391	-01906619-04566645-0235	-03625	7
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5738	ENSMUSGcRab27a	11891	016272118026693674-0225	-031	7
5741	ENSMUSGcRab29	226422	024001124-01153430-0305	-068	7
5771	ENSMUSGcRab8a	17274	014468343-00289198-014	-032	7
5782	ENSMUSGcRabggtb	19352	-00305797-01425214-03175	-019	7
5783	ENSMUSGcRabif	98710	000028392-00734464-0115	-02425	7
5791	ENSMUSGcRad21	19357	010322641-00903663-0265	-01825	7
5795	ENSMUSGcRadil	231858	007382189006855846-02025	-0085	7
5802	ENSMUSGcRaltbp1	19765	024955618007445646-03375	-031	7



5804	ENSMUSGcRalgapa2	241694	001231983	011614714	-01025	-02225	7
5808	ENSMUSGcRaly	19383	001198613	-01343781	-0315	-045	7
5821	ENSMUSGcRap1b	215449	002740302	003935842	-007	-03625	7
5831	ENSMUSGcRapgef4	56508	009195234	-01392509	-00975	-01875	7
5833	ENSMUSGcRapgef6	192786	-00477186	021464760	-02725	-008	7
5852	ENSMUSGcRassf5	54354	015146266	-01033039	-04175	-045	7
5857	ENSMUSGcRbbp6	19647	-00960330	005733588	-017	-0235	7
5862	ENSMUSGcRbfox1	268859	-00953680	-00521464	-01975	-0425	7
5863	ENSMUSGcRbfox2	93686	014979064	006255329	-04375	-03	7
5869	ENSMUSGcRbm12b2	77604	-00148106	011098788	-0205	-044	7
5870	ENSMUSGcRbm14	56275	010319338	-00753867	-035	-01375	7
5874	ENSMUSGcRbm19	74111	029211091	003997080	-028	-011	7
5875	ENSMUSGcRbm22	66810	-00314466	007607477	-04875	-019	7
5879	ENSMUSGcRbm28	68272	021304196	-00028577	-05125	-01925	7
5881	ENSMUSGcRbm34	52202	00129026	000257849	-04775	-01875	7
5883	ENSMUSGcRbm45	241490	010212203	-0123545	-02175	-021	7
5902	ENSMUSGcRcc1	100088	019774316	009211014	-03125	-01475	7
5905	ENSMUSGcRcl1	59028	014108205	009324105	-039	-044	7
5913	ENSMUSGcRdx	19684	-00437399	00045642	-01675	-013	7
5928	ENSMUSGcReps1	19707	014056881	-00068116	-025	-00325	7
5933	ENSMUSGcRetreg3	67998	-01137776	010460345	-01625	-039	7
5945	ENSMUSGcRfn2	74013	008567875	-03237131	-015	-03725	7
5956	ENSMUSGcRgs14	51791	-00795213	-02157530	-007	-02	7
5965	ENSMUSGcRgs8	67792	-00387678	-01002649	-04175	-05075	7
5974	ENSMUSGcRhoc	11853	-00820667	-02044024	-01275	-01225	7
5994	ENSMUSGcRlms3	242662	024336583	-00539288	-0075	-04	7
5995	ENSMUSGcRlms4	241770	023231833	-00155453	-00425	-01525	7
5999	ENSMUSGcRlwk3	66878	-00064494	-00079854	-00575	-03875	7
6021	ENSMUSGcRnd2	11858	004031066	-01727508	-0185	-014	7
6031	ENSMUSGcRnf126	70294	-00066826	-00542642	-0355	-00625	7
6044	ENSMUSGcRnf2	19821	-00150904	004745454	-03675	-05925	7
6063	ENSMUSGcRnps1	19826	008244113	-00277126	-01575	-05725	7
6078	ENSMUSGcRpf2	67239	002781535	-02007984	-04425	-0065	7
6081	ENSMUSGcRph3a	19894	-00291252	-03410072	-009	-01575	7
6118	ENSMUSGcRpl39	67248	011634902	-01062959	-03375	-00525	7
6175	ENSMUSGcRpud3	101122	002118537	024424209	-01975	-01475	7
6185	ENSMUSGcRrm2b	382985	003022358	-00332150	-01575	-0395	7
6187	ENSMUSGcRrp12	107094	022572135	-00064958	-02225	-01775	7
6189	ENSMUSGcRrp9	27966	013965562	017696913	-021	-01225	7
6190	ENSMUSGcRrs1	59014	007989045	000306353	-042	-03425	7
6192	ENSMUSGcRsl1d1	66409	-00098547	-00486683	-02875	-02175	7
6207	ENSMUSGcRtn4ip1	170728	010988615	-01566200	-0235	-02925	7
6218	ENSMUSGcRundc3b	242819	004407291	-01114634	-02275	-00425	7
6223	ENSMUSGcRuvbl2	20174	0049581408	-00531698	-0135	-01875	7
6238	ENSMUSGcS100b	20203	-00060038	-02714580	-01275	-03125	7
6245	ENSMUSGcS10fb	224903	015734246	003971542	-01925	-0345	7
6246	ENSMUSGcS10fb2	224902	009932148	004986712	-0065	-0295	7
6248	ENSMUSGcS10md12	320679	007370128	001870415	-02675	-00475	7
6264	ENSMUSGcS10rdh	192166	000842802	-01995217	-028	-02625	7
6266	ENSMUSGcS10rnp	66118	013955706	001350834	-02475	-03675	7
6267	ENSMUSGcS10rs2	71984	-00031511	000652613	-0145	-02425	7
6280	ENSMUSGcS10caf1	233208	018434068	007575620	-0305	-04825	7
6294	ENSMUSGcS10cd2	20250	005249426	-00876777	-01075	-0345	7
6320	ENSMUSGcS10crn3	74616	006191061	-00841929	-004	-0225	7
6321	ENSMUSGcS10crt1	170729	017434953	009785454	-0465	-03375	7
6335	ENSMUSGcS10dha	66945	008341362	-02037571	-0115	-0115	7
6340	ENSMUSGcS10dhb	67680	004810346	-01084666	-013	-03875	7
6350	ENSMUSGcS10d141	74136	003432833	-00337520	-0115	-02125	7
6369	ENSMUSGcS10ehl1	72124	-00820820	-00708122	-0205	-035	7
6377	ENSMUSGcS10elenoo	223776	-00367617	-00058824	-023	-0075	7
6401	ENSMUSGcS10sepsec5	211006	006824596	001901639	-01775	-03875	7
6410	ENSMUSGcS10septin8	20362	010661951	-01943522	-024	-04375	7
6411	ENSMUSGcS10septin9	53860	020059423	-02101853	-0065	-03875	7
6437	ENSMUSGcS10setd7	73251	010334413	-01377930	-02075	-01725	7
6447	ENSMUSGcS10f3b2	319322	012049275	-00792412	-02025	-02675	7
6448	ENSMUSGcS10f3b3	101943	005107505	-00790886	-0035	-022	7
6451	ENSMUSGcS10f3b6	66055	004093293	-01075181	-044	-0405	7
6462	ENSMUSGcS10fkn5	94282	005336197	-03785497	-01175	-01825	7
6477	ENSMUSGcS10h2b2	23921	003714838	016322005	-0325	-064	7
6479	ENSMUSGcS10h2d5	230863	000958396	-00681776	-02225	-022	7
6481	ENSMUSGcS10h3bgr12	212531	-00543409	-01325247	-0255	-0445	7
6482	ENSMUSGcS10h3bgr13	73723	-00378465	-02425419	-01725	-04225	7
6483	ENSMUSGcS10h3bp1	20401	004541457	012045828	-02725	-027	7
6488	ENSMUSGcS10h3gl1	20405	013597538	009194431	-02025	-0025	7
6489	ENSMUSGcS10h3gl2	20404	018044925	-02169542	-05275	-01775	7
6490	ENSMUSGcS10h3gl3	20408	007068526	-01621470	-01175	-01875	7
6492	ENSMUSGcS10h3glb2	227700	003730978	-00287931	-01875	-05175	7
6496	ENSMUSGcS10h3pf1	59009	014453077	011399886	-00425	-019	7
6504	ENSMUSGcS10hb	230126	-00802455	-00869368	-0235	-006	7
6505	ENSMUSGcS10hc2	216148	008635986	000329714	-03975	-01725	7
6529	ENSMUSGcS10k3	70661	010638575	-00027353	-00525	-0435	7
6539	ENSMUSGcS10l2	64383	008652334	-01854713	-01225	-0505	7
6546	ENSMUSGcS10laln2	75991	008130756	009432231	-034	-021	7
6574	ENSMUSGcS10lc1a2	20511	012417626	-01111368	-03375	-032	7
6579	ENSMUSGcS10lc20a1	20515	-01835603	-00789182	-033	-0085	7
6591	ENSMUSGcS10lc25a11	67863	007632156	-00765261	-01025	-0285	7
6592	ENSMUSGcS10lc25a12	78830	007493763	-00031349	-02875	-021	7
6603	ENSMUSGcS10lc25a23	66972	01526562	-00299247	-01175	-01375	7
6607	ENSMUSGcS10lc25a27	74011	017677602	024183293	-01725	-025	7
6610	ENSMUSGcS10lc25a3	18674	-00166635	-02694183	-01775	-022	7
6612	ENSMUSGcS10lc25a33	70556	016447712	007927161	-021	-02975	7
6617	ENSMUSGcS10lc25a42	73095	0114104	005887269	-01125	-02425	7
6621	ENSMUSGcS10lc25a51	230125	00292665	007477896	-01575	-016	7
6624	ENSMUSGcS10lc26a6	171429	-00199493	017182191	-01025	-02825	7
6640	ENSMUSGcS10l0a9	109108	007026997	-00499904	-02425	-01425	7
6668	ENSMUSGcS10l39a7	14977	004305706	019632245	-0435	-03025	7
6703	ENSMUSGcS10l7a11	26570	-00102932	-00160009	-03075	-0025	7
6734	ENSMUSGcS10lk	20874	-00744247	001962290	-0285	-02425	7
6743	ENSMUSGcS10map2	69780	008632086	-01101835	-03075	-0135	7
6745	ENSMUSGcS10marca2	67155	017796845	006420985	-02875	-02	7
6747	ENSMUSGcS10marca5	93762	016493746	008430057	-002	-03625	7
6752	ENSMUSGcS10marcd1	83797	001705604	-00673422	-0175	-01925	7
6757	ENSMUSGcS10mc3	13006	020068996	007358251	-01775	-01825	7
6760	ENSMUSGcS10mc8	237782	016428652	020672331	-008	-0305	7
6764	ENSMUSGcS10mnd6	103677	-00063585	-00497827	-02675	-00975	7
6776	ENSMUSGcS10mndc1	76479	000023707	-00588327	-044	-057	7
6786	ENSMUSGcS10mug1	71725	003033260	01239305	-0245	-00925	7
6788	ENSMUSGcS10myd2	226830	006214875	-00798194	-0065	-01575	7
6789	ENSMUSGcS10myd3	69726	-00381315	-01126133	-02725	-04875	7
6795	ENSMUSGcS10nap91	20616	020058426	001145751	-0075	-015	7
6797	ENSMUSGcS10nca	20617	012448847	-01179887	-02025	-00325	7
6813	ENSMUSGcS10nrpb2	20639	-01134800	-01423116	-04775	-01725	7
6822	ENSMUSGcS10ntb1	20649	-01792518	-00807342	-02925	-011	7
6826	ENSMUSGcS10nw1	66354	020187827	007795371	-036	-0425	7
6830	ENSMUSGcS10nx12	55988	-00103955	-03071631	-008	-0205	7
6834	ENSMUSGcS10nx16	74718	-00314176	007976458	-01225	-012	7
6846	ENSMUSGcS10nx32	225861	012665234	007345299	-03475	-01275	7
6848	ENSMUSGcS10nx4	69150	002715477	-00864745	-0075	-01775	7
6849	ENSMUSGcS10nx5	69178	005039675	-01192947	-008	-024	7
6851	ENSMUSGcS10nx7	76561	001158098	-00936329	-0065	-032	7
6854	ENSMUSGcS10obp	109205	01786264	023248372	-025	-01675	7
6869	ENSMUSGcS10os2	20663	-00010834	009709320	-031	-00575	7
6880	ENSMUSGcS10pag9	70834	001704573	-00399729	-016	-019	7
6883	ENSMUSGcS10part	229285	002790878	-01188623	-0205	-0085	7
6916	ENSMUSGcS10pred2	114716	011501343	-00236935	-003	-01925	7
6920	ENSMUSGcS10pyrd3	223918	004380706	-01433785	-01425	-03575	7



6927	ENSMUSGcSptbn4	80297	015843177	012651527	-01425	-015	7
6956	ENSMUSGcSrmr2	79596	01113985C	026696422	-034	-032	7
6962	ENSMUSGcSrsf12	272009	-01159956	-00073068	-01275	-0535	7
6964	ENSMUSGcSrsf3	20383	-00071371	006937686	-01875	-02225	7
6965	ENSMUSGcSrsf4	57317	005849751	-00273581	-0375	-0395	7
6970	ENSMUSGcSrxn1	76650	003316716	-00725940	-044	-01775	7
6974	ENSMUSGcSsbp1	381760	-00502089	011604982	-02525	-0335	7
6998	ENSMUSGcStag1	20842	015487084	005774047	-009	-02975	7
7004	ENSMUSGcStard10	56018	-00241923	-01693605	-01	-02675	7
7010	ENSMUSGcStat2	20847	021952193	009724849	-03975	-0345	7
7022	ENSMUSGcStip1	20867	009957087	-00763666	-0255	-02325	7
7030	ENSMUSGcStk32c	57740	007270364	-00290068	-00875	-04575	7
7032	ENSMUSGcStk38f	232533	018653551	003826387	-02075	-0315	7
7041	ENSMUSGcStom12	66592	009980905	-01057019	-04025	-00925	7
7042	ENSMUSGcSton2	108800	-01439283	-03627956	-01575	-025	7
7047	ENSMUSGcStrbp	20744	016752322	-00071239	-011	-053	7
7056	ENSMUSGcStum	381310	-00156157	015975603	-0085	-01725	7
7061	ENSMUSGcStx1a	20907	024863104	-00192032	-00725	-051	7
7062	ENSMUSGcStx1b	56216	012006634	-00587779	-01925	-032	7
7078	ENSMUSGcSuc1g2	20917	010488311	-01041332	-0215	-0285	7
7083	ENSMUSGcSupg2	234373	020369977	018913004	-019	-04325	7
7096	ENSMUSGcSupv31	338359	010772753	009253929	-01575	-01475	7
7100	ENSMUSGcSurf6	20935	01360788C	-00007970	-01025	-0135	7
7108	ENSMUSGcSvip	75744	-00651658	-01886271	-04775	-0445	7
7114	ENSMUSGcSyf2	68592	00781683C	-00854560	-0205	-02075	7
7117	ENSMUSGcSyn1	20964	01297265C	-01085745	-0255	-0315	7
7119	ENSMUSGcSyn3	27204	-00317345	002158508	-02525	-0225	7
7121	ENSMUSGcSynd1g1	433485	-02610517	-03139109	-01475	-01925	7
7123	ENSMUSGcSyne2	319565	-03100771	-00371727	-0405	-013	7
7128	ENSMUSGcSynj1	104015	009521367	005273553	-015	-022	7
7130	ENSMUSGcSynj2bp	24071	010189897	-00994562	-031	-0065	7
7132	ENSMUSGcSynpo	104027	018640263	005011051	-02475	-01675	7
7185	ENSMUSGcTamm41	68971	-00853554	-01154074	-024	-023	7
7198	ENSMUSGcTardbp	230908	004577644	00810822	-0155	-02475	7
7207	ENSMUSGcTbcd1d1	57915	024683493	025867017	-0305	-044	7
7214	ENSMUSGcTbcd1d7	233204	009849015	003322027	-00725	-034	7
7226	ENSMUSGcTbcd1d7	67046	-01647590	-02913458	-008	-0475	7
7237	ENSMUSGcTbck	271981	013326193	003626551	-00875	-02125	7
7254	ENSMUSGcTcf20	21411	006360977	005817768	-02725	-019	7
7256	ENSMUSGcTcf4	21413	015597801	002793385	-02225	-00175	7
7275	ENSMUSGcTefm	68550	-00328658	-03367501	-006	-0285	7
7290	ENSMUSGcTex2	21763	-00073321	-00122458	-01075	-015	7
7306	ENSMUSGcTgs1	116940	016367833	018462031	-0225	-05425	7
7308	ENSMUSGcTha1	71776	012420208	015320357	-026	-01075	7
7315	ENSMUSGcThgl1	66628	-00311411	-02183219	-03425	-03475	7
7339	ENSMUSGcTimm10	30055	01211809	-01860145	-0155	-01125	7
7343	ENSMUSGcTimm17b	21855	-00420199	-02264387	-033	-0185	7
7344	ENSMUSGcTimm21	67105	-00156734	014548767	-02	-017	7
7350	ENSMUSGcTimm8a1	30058	020194828	000429671	-00825	-03225	7
7351	ENSMUSGcTimm8b	30057	000080961	-02531492	-03575	-03975	7
7358	ENSMUSGcTjp2	21873	001022283	-02395929	-04025	-017	7
7370	ENSMUSGcTln2	70549	007347059	-00932234	-015	-0075	7
7412	ENSMUSGcTmem132c	243274	-01599648	022750949	-036	-01475	7
7416	ENSMUSGcTmem143	70209	-01160712	-02501753	-02575	-005	7
7418	ENSMUSGcTmem145	330485	004053932	009322661	-00675	-01475	7
7437	ENSMUSGcTmem186	66690	-00074126	001194271	-0035	-03075	7
7479	ENSMUSGcTmem65	74868	003217758	-00188808	-01225	-01675	7
7492	ENSMUSGcTmod1	21916	-02649905	-01715589	-0205	-01975	7
7494	ENSMUSGcTmod3	50875	004830508	014362650	-0175	-01725	7
7514	ENSMUSGcTnk2	51789	023091217	016513486	-02675	-02175	7
7525	ENSMUSGcTns2	209039	017929895	054946009	-037	-06325	7
7541	ENSMUSGcTop2b	21974	010297841	003840754	-00675	-029	7
7550	ENSMUSGcTox4	268741	011317842	-00436814	-011	-0375	7
7555	ENSMUSGcTpd5211	21987	-00633916	-02155982	-01525	-01275	7
7559	ENSMUSGcTph2	216343	-02756672	-02737374	-0345	-0155	7
7563	ENSMUSGcTpm3	59069	004084717	-01133245	-02275	-016	7
7570	ENSMUSGcTpr	108989	019883073	001851961	-03675	-03575	7
7577	ENSMUSGcTra2b	20462	-00430144	004542848	-0325	-05375	7
7582	ENSMUSGcTraf7	224619	012769335	001814163	-02375	-004	7
7584	ENSMUSGcTrak1	67095	019274192	013704893	-0375	-029	7
7585	ENSMUSGcTrak2	70827	000762325	-02921723	-011	-0125	7
7593	ENSMUSGcTrappc13	66975	007536125	006950413	-02775	-0085	7
7612	ENSMUSGcTrim26	22670	-01278031	003016792	-03675	-023	7
7623	ENSMUSGcTrim56	384309	003532418	-03592978	-02025	-0295	7
7631	ENSMUSGcTrip12	14897	010293685	002940654	-026	-02225	7
7660	ENSMUSGcTsc22d1	21807	015664954	013812269	-01175	-02725	7
7661	ENSMUSGcTsc22d2	72033	003891842	017219477	-039	-0675	7
7665	ENSMUSGcTsfm	66399	016998846	-00806841	-025	-00625	7
7669	ENSMUSGcTsn	22099	-00550519	-00392029	-02425	-02075	7
7705	ENSMUSGcTtc5	219022	003491177	-00282898	-02225	-01475	7
7727	ENSMUSGcTuba8	53857	011221876	-03478593	-03175	-0535	7
7731	ENSMUSGcTubb4a	22153	-01462215	-02450197	-0285	-01675	7
7737	ENSMUSGcTubgcp2	74237	005345668	-00644253	-01025	-04025	7
7742	ENSMUSGcTufm	233870	006411762	-02358018	-018	-01875	7
7754	ENSMUSGcTxn2	56551	005124185	-02101035	-029	-03825	7
7764	ENSMUSGcTxnl4b	234723	001024591	-01338344	-04575	-03	7
7781	ENSMUSGcUba3	22200	003841832	-01376212	-00725	-021	7
7814	ENSMUSGcUbe2v2	70620	-00485175	-00531675	-02075	-0535	7
7815	ENSMUSGcUbe2w	67699	005731071	-00122314	-02275	-0105	7
7828	ENSMUSGcUblcp1	79560	012015814	006143835	-0395	-03725	7
7838	ENSMUSGcUbr5	70790	011992757	006033081	-021	-00825	7
7842	ENSMUSGcUbxn1	225896	001485237	-01499347	-02175	-00475	7
7843	ENSMUSGcUbxn2a	217379	009850123	-00759289	-01375	-02125	7
7844	ENSMUSGcUbxn2b	68053	01515248C	-00365091	-011	-011	7
7863	ENSMUSGcUgdh	22235	-00758301	-00638730	-04	-01675	7
7875	ENSMUSGcUnc13a	382018	009202343	-00022202	-00775	-022	7
7876	ENSMUSGcUnc13b	22249	014291012	-00533883	-0185	-015	7
7877	ENSMUSGcUnc13c	208898	-02834930	-04284454	-0235	-01675	7
7889	ENSMUSGcUpf2	326622	015712539	001955154	-02475	-0085	7
7899	ENSMUSGcUqerc1	22273	007119152	-01774331	-0035	-02725	7
7900	ENSMUSGcUqerc2	67003	004511423	-02087544	-00425	-02275	7
7906	ENSMUSGcUrgcp	72046	009568908	-00207071	-01325	-0075	7
7928	ENSMUSGcUsp31	76179	014746838	009884877	-02225	-007	7
7944	ENSMUSGcUsp6nl	98910	010983177	-00049106	-0105	-01075	7
7949	ENSMUSGcUtp11	67205	015630885	017405831	-03275	-061	7
7951	ENSMUSGcUtp15	105372	-00242327	015704117	-032	-01875	7
7958	ENSMUSGcUvrag	78610	011795422	007318308	-0155	-03375	7
7960	ENSMUSGcVavc14	234729	002987566	000900076	-009	-02075	7
7970	ENSMUSGcVars2	68915	013328814	009913848	-0065	-01275	7
7976	ENSMUSGcVav1	22324	-00382993	003462098	-01175	-00925	7
8004	ENSMUSGcVps13a	271564	-01478606	029590752	-036	-01325	7
8020	ENSMUSGcVps36	70160	017994152	007472148	-00525	-01625	7
8021	ENSMUSGcVps37a	52348	009835508	006031091	-00675	-01775	7
8033	ENSMUSGcVps53	68299	013458564	-00991898	-01225	-012	7
8035	ENSMUSGcVps8	209018	017588257	-00280114	-012	-0185	7
8049	ENSMUSGcVwa5a	67776	011976621	-01162331	-00475	-03275	7
8051	ENSMUSGcVwa8	219189	013160614	-01170501	-015	-03075	7
8062	ENSMUSGcWashc1	68767	009648558	-01212828	-019	-0065	7
8068	ENSMUSGcWbp11	60321	00173488C	-00035799	-021	-02325	7
8086	ENSMUSGcWdr3	269470	005085126	-00204366	-0085	-01075	7
8089	ENSMUSGcWdr36	225348	009085657	009830823	-0135	-007	7
8090	ENSMUSGcWdr37	207615	00589334C	-00149015	-00975	-04575	7
8092	ENSMUSGcWdr43	72515	001253292	-00376499	-03325	-03925	7
8121	ENSMUSGcWnk1	232341	-00217054	-02339076	-033	-011	7
8123	ENSMUSGcWnk3	279561	-00455477	-00880243	-0245	-026	7
8131	ENSMUSGcWwp2	66894	009058026	-00554725	-01125	-04775	7



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8180	ENSMUSGcYpel5	383295	-00323420-00902009-00625	-01375	7
8182	ENSMUSGcYthdc1	231386	000593264007343660-0195	-0505	7
8200	ENSMUSGcZbtb45	232879	013152752006821077-037	-00975	7
8207	ENSMUSGcZc3h14	75553	005123868-00573136-0225	-046	7
8215	ENSMUSGcZcchc10	67966	029743805007049831-0095	-02325	7
8244	ENSMUSGcZfp326	54367	007101242008128931-03625	-05875	7
8250	ENSMUSGcZfp385b	241494	-00042493002177913-0355	-03625	7
8251	ENSMUSGcZfp428	232969	-00174453-03201548-0165	-01775	7
8262	ENSMUSGcZfyve21	68520	007003497-00133460-00575	-0265	7
8279	ENSMUSGcZmynd11	66505	006314761-00175447-04925	-03275	7
8284	ENSMUSGcZnrf2	387524	00805590015093187-04775	-027	7
189	ENSMUSGcAdgra2	78560	015480941043665202-00075	2555	8
535	ENSMUSGcAnd4b	94246	-01608102015291127-08575	21525	8
1072	ENSMUSGcCcm12	72949	-00575481016932008-04675	16975	8
1302	ENSMUSGcCdm3	12739	-06623746-05197838-13675	34725	8
1419	ENSMUSGcCol3a1	12825	-02293307-0131936301725	32075	8
1692	ENSMUSGcD030056L2	225995	011122985001683747-05	1875	8
2255	ENSMUSGcEpc1	13831	00659252100952400602175	3355	8
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2534	ENSMUSGcFinc	68794	035894274046809757-03325	1895	8
2978	ENSMUSGcGtfzh1	14884	005761305-00256192025	188	8
3120	ENSMUSGcHmgn2	15331	-00979163-00810052-0345	23375	8
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3549	ENSMUSGcKl	16591	007962439503857530-085	14925	8
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3817	ENSMUSGcLlyrm2	108755	-00056714-01242687-04175	159	8
3839	ENSMUSGcMadd	228355	0084899370086804370405	1975	8
4018	ENSMUSGcMed8	80509	-04805164-01114910-08725	2115	8
4021	ENSMUSGcMef2d	17261	01218241006253611-053	1645	8
4419	ENSMUSGcNcdn	26562	006260025-00572614-07125	15675	8
4432	ENSMUSGcNcoa2	17978	010030476008205046-00025	17775	8
4472	ENSMUSGcNdufaf8	208501	-00307591-04460660-04725	21	8
4796	ENSMUSGcOlfm13	99543	-0270584000780291008575	29725	8
4800	ENSMUSGcOmp	18378	-26222218081976140-071	4205	8
4980	ENSMUSGcPcolce	18542	-01586648019560585-00325	17975	8
5060	ENSMUSGcPeg3	18616	-01701166-00592083-06125	2105	8
5518	ENSMUSGcProrsd1	67939	028013416024671172-0335	22575	8
5619	ENSMUSGcPter	19212	018792895-01127359-0055	1625	8
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6666	ENSMUSGcSlc39a3	106947	-0187791100906469400675	186	8
6692	ENSMUSGcSlc6a12	14411	045320894-01543258-03475	1755	8
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6938	ENSMUSGcSrebf2	20788	-01795469000406948-0415	16325	8
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7274	ENSMUSGcTef	21685	010403006031572845-036	17475	8
7334	ENSMUSGcTia1	21841	-01640795031061085-0235	158	8
7499	ENSMUSGcTmtc1	387314	-038639250048432320215	17675	8
7603	ENSMUSGcTrh	22044	-09937484-02212208-13525	18	8
7734	ENSMUSGcTubb6	67951	-02249175-021411320005	203	8
7853	ENSMUSGcUcp2	22228	01113976603439206901875	15825	8
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63	ENSMUSGcAbcg4	192663	-0160755010567638-00675	103	9
84	ENSMUSGcAbr	109934	016420607-00528281-0465	10425	9
134	ENSMUSGcAcsl6	216739	-00120019-00030333-02325	07425	9
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220	ENSMUSGcAfp1	70292	-00172226-01284411-031	06475	9
226	ENSMUSGcAfg3l1	114896	013692228-007617210175	094	9
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328	ENSMUSGcAloxSap	11690	005038374002415640-03125	0655	9
336	ENSMUSGcAmer3	211383	007423842-00090220-0595	09125	9
364	ENSMUSGcAnkmy1	241158	-00628234-002104810085	12625	9
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617	ENSMUSGcAtf2	11909	005742445-0038902901875	0945	9
698	ENSMUSGcAtxn1	20238	006408939009210811-04625	0605	9
701	ENSMUSGcAtxn2	20239	003613375006138874-02175	061	9
713	ENSMUSGcAzi2	27215	003311505001482867-06325	074	9
716	ENSMUSGcB3galt5	93961	-03111569015937721-02075	06975	9
723	ENSMUSGcB4galt7	218271	-02563059011737328-032	0965	9
765	ENSMUSGcBccip	66165	000016975-00816553-03025	07875	9
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818	ENSMUSGcBod1l	665775	006470123005198381-02	089	9
842	ENSMUSGcBrd8	78656	-00442346-00365976-0335	05925	9
865	ENSMUSGcBtbd9	224671	016052201010253504-01725	0785	9
866	ENSMUSGcBtd	26363	-04723457-00020201-02325	0765	9
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885	ENSMUSGcC2cd5	74741	021869788-00683935-003	1285	9
909	ENSMUSGcCacnb1	12295	010881757-01166368012	097	9
919	ENSMUSGcCacul1	78832	008281375001420729-03975	08725	9
964	ENSMUSGcCapn10	23830	008705559010310430-03575	0705	9
979	ENSMUSGcCarmmt1	67383	012262383011490990-041	082	9
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1107	ENSMUSGcCd99l2	171486	-02432664002357447-02725	1015	9
1147	ENSMUSGcCdk16	18555	016203404-00119721-015	08175	9
1175	ENSMUSGcCelf5	319586	025663499004330845-0105	1135	9
1179	ENSMUSGcCend1	57754	004182606-02194319-0835	0685	9
1184	ENSMUSGcCep131	12009	018031506-00669053-03225	06675	9
1205	ENSMUSGcCfpaf74	544678	015064165013637525-00125	07925	9
1235	ENSMUSGcChga	12652	-04714968-0000381700375	0865	9
1258	ENSMUSGcChpf2	100910	-00688735020581619-01025	095	9
1261	ENSMUSGcChrm2	243764	-05412738041211707-04375	064	9
1271	ENSMUSGcClao2a	68250	-00017667-01760840-0045	09225	9
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1307	ENSMUSGcClgn	12745	-03728435-00208039-03275	0605	9
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1322	ENSMUSGcClock	12753	007875976-00443974-02075	13	9
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1535	ENSMUSGcCreg1	433375	-03369178015466650-076	06425	9
1536	ENSMUSGcCreg2	263764	-02902600025807598-0675	1275	9
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1549	ENSMUSGcCrmp1	12933	008654887-01456729-02475	07125	9
1562	ENSMUSGcCrybg3	224273	-00829232012764861-00425	07275	9
1579	ENSMUSGcCsnk1d	104318	017680208-00156584-03125	0665	9



1644	ENSMUSGCuI7	66515	008953599	004105944-046	1095	9	
1657	ENSMUSGCxcl14	57266	-01297480	-00677275-033	06175	9	
1660	ENSMUSGCGyb561d2	56368	-03756388	-00384775i-011	071	9	
1689	ENSMUSGCGyth2	19158	002306733	-00454234-014	0695	9	
1705	ENSMUSGCDact2	240025	00763521c	00068089401825	092	9	
1706	ENSMUSGCDact3	629378	023143904010145603	-00675	08075	9	
1729	ENSMUSGCDcaf10	242418	-01212454	005888376-02325	07575	9	
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1745	ENSMUSGDCps	69305	020277485	-006725260025	135	9	
1760	ENSMUSGCDda1	66498	0101188030033673000075		0965	9	
1843	ENSMUSGCDhds	67422	010451477	003298510-066	0895	9	
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2002	ENSMUSGCDpyd	99586	-01339212	-00278188008	09725	9	
2018	ENSMUSGCDtd1	66044	-01034703	-01389262-034	0665	9	
2022	ENSMUSGCDtnbp1	94245	004466431	-02021864i-02025	0775	9	
2066	ENSMUSGCEcd	70601	015674758	-00413304-04425	0915	9	
2078	ENSMUSGCEdc3	353190	00994637800329287701475		0945	9	
2091	ENSMUSGCEef1d	66566	014981601	-00552874i-00575	117	9	
2098	ENSMUSGCEfemp1	216616	-02824476	007617085-0255	10525	9	
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2170	ENSMUSGCElf5a2	208691	004004736	-00521518-01675	06875	9	
2212	ENSMUSGCEmlin1	100952	-04792827	-00993411i-01225	08025	9	
2309	ENSMUSGCEss2	27886	-00075810	010378060-035	072	9	
2372	ENSMUSGCFaim2	72393	-02396879	00705963300475	09875	9	
2393	ENSMUSGCFam169a	320557	-01893593	003999164-015	06725	9	
2412	ENSMUSGCFam50a	108160	018103091008727053	-0375	089	9	
2416	ENSMUSGCFam8a1	97863	-03280100	008580468003	0985	9	
2456	ENSMUSGCFbxo38	107035	016280055	012982647-0185	07125	9	
2503	ENSMUSGCFhdcl	229474	002378612	-01238300i-0225	079	9	
2510	ENSMUSGCFhodi	234686	004094666	022235453-00525	07175	9	
2530	ENSMUSGCFlcn	216805	001729142	017134719-018	073	9	
2566	ENSMUSGCFoxk1	17425	009887434007529993	-00875	089	9	
2663	ENSMUSGCGanab	14376	-02095994	011249335-034	06375	9	
2680	ENSMUSGCGata2b	229542	001800455	008826364-01125	085	9	
2756	ENSMUSGCGkap1	56278	007399214009406523	-0275	06975	9	
2769	ENSMUSGCGlra3	110304	-06690234	02245971i-06575	122	9	
2860	ENSMUSGCGpbb1	73274	010318823011644196	-022	06625	9	
2908	ENSMUSGCGrb14	50915	007740713004091872	-00925	104	9	
2910	ENSMUSGCGrcc10	14790	-00702326	-01367030i-00125	09325	9	
2940	ENSMUSGCGrn	14824	-02163312	0176252780065	15	9	
2972	ENSMUSGCGtt2a2	235459	-00413671	006396912-054	07925	9	
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3100	ENSMUSGCHirip3	233876	-00108758	016111479-045	09725	9	
3108	ENSMUSGCHirpcn1	545370	-00247711	022309970-03575	06275	9	
3119	ENSMUSGCHimgn1	15312	00508941	-01455625i-0375	0745	9	
3122	ENSMUSGCHimgn5	50887	024054265	013593341-01725	10825	9	
3150	ENSMUSGCHhook2	170833	009265866	001826542-01525	09425	9	
3159	ENSMUSGCHpx	15458	000891797	-10354470i-01875	1075	9	
3166	ENSMUSGCHs6st1	50785	-01314915	026314345-018	0645	9	
3193	ENSMUSGCHspb1	15507	044595997	093851065-05425	0745	9	
3259	ENSMUSGClgkc	16071	-00364082	-04745085	00625	13325	9
3282	ENSMUSGClkap	67444	00443682c	-00661863i-03275	0655	9	
3348	ENSMUSGClrf2bpl	238330	-01310933	000198244-02875	065	9	
3423	ENSMUSGCljmb	16477	-10254128	-0807492000925	1485	9	
3427	ENSMUSGCKank1	107351	015771184	-00625510i-05625	112	9	
3441	ENSMUSGCKbtbd4	67136	-00181873	-00387102-0095	0705	9	
3516	ENSMUSGCKdm5b	75605	022307382	008819832-048	12375	9	
3535	ENSMUSGCKf2a	16563	-00404448	006940223-0335	08375	9	
3568	ENSMUSGCKlhi4	237010	-00290704	-00762209i-01475	1135	9	
3634	ENSMUSGCLcat	16816	-01572168	015252307-01975	07425	9	
3639	ENSMUSGCLdb1	16825	-00351392	015518718-0405	07675	9	
3648	ENSMUSGCLeo1	235497	015918715	-03203310i-002	07975	9	
3692	ENSMUSGCLmbr1	56873	-02612743	0203636140045	1335	9	
3710	ENSMUSGCLonrf2	381338	021941137	-00988935i-04925	13275	9	
3721	ENSMUSGCLratd2	399603	-02332026	014385410002	084	9	
3755	ENSMUSGCLrrc7	242274	00928877c	016801611-08925	09775	9	
3802	ENSMUSGCLy6a	110454	007268674065108103	-059	081	9	
3812	ENSMUSGCLypd6	320343	-01467491	-024623600035	12825	9	
3846	ENSMUSGCMagee2	272790	-03212954	-02913259i-02825	0665	9	
3857	ENSMUSGCMan2a1	17158	-01573221	043491115i-09675	08825	9	
3886	ENSMUSGCMap3k2	26405	-00101423	016784871i-0585	09175	9	
3926	ENSMUSGCMarchf7	57438	-02304048	025676986-06625	08025	9	
3936	ENSMUSGCMasp1	17174	-02530833	026947874-1065	1265	9	
3959	ENSMUSGCMboat7	77582	-03216301	0153487480045	0745	9	
3991	ENSMUSGCMdm4	17248	-01673382	017095653-0515	0835	9	
3992	ENSMUSGCMdm1	900019	-04572215	016773874-02375	0855	9	
4006	ENSMUSGCMed15	94112	014922056	-00864240-021	0975	9	
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4015	ENSMUSGCMed30	69790	-00603020	-01168991i-013	13325	9	
4020	ENSMUSGCMef2c	17260	010498599	-00328948i-0215	13125	9	
4022	ENSMUSGCMegf10	70417	-02605030	002166078-01475	11225	9	
4023	ENSMUSGCMegf6	230971	052831682	083454250i-01325	091	9	
4056	ENSMUSGCMfsd1	66868	-00470909	-00133375i-01425	14975	9	
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4133	ENSMUSGCMorrc2a	74522	009664104002150063	-01625	07725	9	
4134	ENSMUSGCMorf4l1	21761	006205293	-01500824i-04925	084	9	
4159	ENSMUSGCMpzl1	68481	-03458646	008081211i-051	0815	9	
4212	ENSMUSGCMrpl58	68572	-00081698	-03027776i-02825	0885	9	
4247	ENSMUSGCMsh2	17685	005450931	-00623581i-0025	0925	9	
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4301	ENSMUSGCMtss2	244654	-00413355	-02948630-0035	08875	9	
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4380	ENSMUSGCMnaglu	27419	-04297593	014877654-02025	0905	9	
4433	ENSMUSGCMcoa5	228869	016735863	00587043100025	0905	9	
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4832	ENSMUSGCMotof	83762	-00959551	-01462053i-03075	14725	9	
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5865	ENSMUSGCMrbks	71336	-02691042	-03888514i-0355	067	9	
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6049	ENSMUSGcRnf220	66743	010771532	-00388563i-02	108	9
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6177	ENSMUSGcRraga	68441	-01035464	-02414197i-00825	113	9
6249	ENSMUSGcSamd14	217125	020264816	011762163i-008	08875	9
6251	ENSMUSGcSamd5	320825	009691394	-02096924i-06425	09275	9
6257	ENSMUSGcSap130	269003	009535237	006974251i-05825	06625	9
6306	ENSMUSGcScn3a	20269	-04239829	0364556250025	07375	9
6343	ENSMUSGcSdcl	330222	-01885615	025085400i-00575	076	9
6373	ENSMUSGcSelenoh	72657	012908974	004859543i-054	07525	9
6381	ENSMUSGcSelenow	20364	005354527	-01908869i-067	08125	9
6414	ENSMUSGcSerf2	378702	004820696	-01909670i-0235	07	9
6454	ENSMUSGcSfr1	67788	00335871c	-00990698i-02325	11325	9
6463	ENSMUSGcSgnd	24052	-01714815	022055173i-031	061	9
6486	ENSMUSGcSh3bp5l	79566	020904746	005423368i-0615		1 9
6487	ENSMUSGcSh3d19	27059	-00046764	008430454i-0065	08325	9
6554	ENSMUSGcSic13a3	114644	-02846545	-00956826i-0155	06325	9
6648	ENSMUSGcSic35b2	73836	-03963443	006279289i-0095	073	9
6651	ENSMUSGcSic35f3	210027	000712134	029608447i-0105	09975	9
6652	ENSMUSGcSic35f6	74919	-04069110	02336498500775	0805	9
6670	ENSMUSGcSic43a2	215113	-03378868	000380882i-0535	06375	9
6675	ENSMUSGcSic47a1	67473	-03299046	-01475724i-024	0785	9
6723	ENSMUSGcSico2b1	101488	001318148	041250071i-041	126	9
6738	ENSMUSGcSmad2	17126	003896952	002285592i-04625	0735	9
6828	ENSMUSGcSsx10	71982	-00337824	00579175901375	109	9
6873	ENSMUSGcSsx1	20664	-00006117	02992189600575	11375	9
6875	ENSMUSGcSsx5	20678	-00279917	-01160968i-0155	09075	9
6876	ENSMUSGcSsx9	20682	-00110024	023093881i-04425	09375	9
6877	ENSMUSGcSp3	20687	-00139322	009599805i-02175	07	9
6897	ENSMUSGcSpg11	214585	010830487	00131624500025	102	9
6917	ENSMUSGcSpre3	101809	019594041	009613277i-0425	065	9
6932	ENSMUSGcSqstm1	18412	-00441035	-00095027i-02225	14025	9
6981	ENSMUSGcSspn	16651	-01017648	031749941i-035	05875	9
6989	ENSMUSGcSsu72	68991	-00708328	-01713643i-025	07225	9
6996	ENSMUSGcStab1	192187	00741610c	035699016i-02575	06425	9
7005	ENSMUSGcStard3	59045	-02616001	015852487i-0155	083	9
7043	ENSMUSGcStox2	71069	022321985	026374064i-00675	07225	9
7082	ENSMUSGcSugp1	70616	000511665	-00527156i-02925	08425	9
7102	ENSMUSGcSud5	382111	-02967290	04151786201675	0905	9
7115	ENSMUSGcSyk	20963	001544209	013713136i-00275	0875	9
7133	ENSMUSGcSynpo2	118449	-00444459	028021491i-03775	05775	9
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7252	ENSMUSGcTceal5	331532	-00396442	-02466859i-00975	147	9
7263	ENSMUSGcTdg	21665	006210372	-16233335i-005	11925	9
7333	ENSMUSGcThyn1	77862	009133674	-00676012i-0115	083	9
7337	ENSMUSGcTiam2	24001	-01467253	-00679715i-01325	1435	9
7366	ENSMUSGcTie3	21887	016433314	014185225i-026	10625	9
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7399	ENSMUSGcTmem114	74720	-03623854	-01168084i-03325	10025	9
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7629	ENSMUSGcTriobp	110253	-00011149	000383102i-00525	07975	9
7633	ENSMUSGcTrir	68544	001260957	-00520325i-02675	129	9
7641	ENSMUSGcTrmt6	66926	003419469	-00692832i-0155	106	9
7657	ENSMUSGcTrub1	72133	-00107737	008355771i-0135	069	9
7747	ENSMUSGcTut1	70044	010913775	002846821i-03325	092	9
7752	ENSMUSGcTxlna	109658	000835003	009201390i-0345	058	9
7771	ENSMUSGcTyw3	209584	-00061697	013028952i-025	1095	9
7780	ENSMUSGcUba2	50995	013585552	00684847801325	1015	9
7796	ENSMUSGcUbe2e3	22193	00811450c	005627919i-046	1085	9
7847	ENSMUSGcUbxn7	224111	005373125	-00018577i-02325	06125	9
7873	ENSMUSGcUnc119	22248	011089055	-00594464005	09275	9
7911	ENSMUSGcUsb1	101985	-00248751i	-00258238i-031	06825	9
7936	ENSMUSGcUsp43	216835	-00526517	-02585469i-011	08625	9
7965	ENSMUSGcVamp8	22320	-00279079	-02172860i-02525	106	9
8002	ENSMUSGcVopp1	232023	-02429622	011944905i-002	089	9
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8133	ENSMUSGcXdh	22436	027381502	085151331i-0065	0815	9
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8172	ENSMUSGcYipf6	77929	-01523026	004430661017	08875	9
8184	ENSMUSGcYthdf1	228994	00721289c	011973223i-0085	07625	9
8197	ENSMUSGcZbtb18	30928	010429122	00398945401175	1155	9
8211	ENSMUSGcZc3h4	330474	004548695	-00306442i-046	0905	9
8225	ENSMUSGcZdhhc20	75965	-03894945	038690207i-02025	11425	9
8248	ENSMUSGcZfp37	22696	000479703	015991890i-0395	0575	9
8256	ENSMUSGcZfpm1	22761	02981169c	022313439i-01625	12975	9
17	ENSMUSGcG030458C1	77877	-00248171	-00141871i-0345	03375	10
54	ENSMUSGcAbcd2	26874	-00793676	-01710385i-04	022	10
72	ENSMUSGcAbhd3	106861	009520644	-00377112i-04875	049	10
73	ENSMUSGcAbhd4	105501	008451827	-02255822i-026	012	10
91	ENSMUSGcAcad11	102632	004888939	-03147915i-03875	0525	10
120	ENSMUSGcAcot8	170789	-01501739i	-01080095i-02775	002	10
123	ENSMUSGcAcov3	80911	-00100051	-00068609i-0815	035	10
127	ENSMUSGcAcsgb1	94180	00761819c	-02923948i-027	0035	10
131	ENSMUSGcAcsl3	74205	003379316	0041524080355	0245	10
162	ENSMUSGcAdam11	11488	-00148955	01001558702225	01525	10
169	ENSMUSGcAdar	56417	014397054	-00213340i-03875	-00125	10
172	ENSMUSGcAdck1	72113	008474031	-00580632i-04325	00325	10
176	ENSMUSGcAdcy2	210044	-00931993	-00468142i-02325	01025	10
191	ENSMUSGcAdgrb2	230775	016666347	02719954804125	02525	10
202	ENSMUSGcAdipor1	72674	-01229465	00098755i-03275	01625	10
245	ENSMUSGcAgps	228061	005102117	-00178762i-02575	01075	10
262	ENSMUSGcAifm2	71361	002715074	-02114060i-03075	00575	10
291	ENSMUSGcAkt2	11652	01335691c	-03564295i-0365	0055	10
311	ENSMUSGcAldh9a1	56752	009149032	-01932723i-04475	003	10
326	ENSMUSGcAlkbh7	66400	-00145401	-01813057i-04575	-00325	10
382	ENSMUSGcAnkrd52	237615	02145385c	0044012020315	01075	10
418	ENSMUSGcAp2m1	11778	01333858c	-01356273i-10925	01725	10
437	ENSMUSGcAqbb1	11785	01915748c	-0032232i-025	00025	10
471	ENSMUSGcArap2	212285	-00026685	-00151596i-02775	01675	10
495	ENSMUSGcArhgap18	73910	-00969054	-00898143i-035	0375	10
526	ENSMUSGcArhgef4	226970	01567548c	00758053102775	02825	10
544	ENSMUSGcAr3	56350	-00185929	-01995689i-0245	00425	10
553	ENSMUSGcAr18b	67166	-00784064	00077413602925	01725	10
576	ENSMUSGcArrb2	216869	013036093	012111721026	01475	10
611	ENSMUSGcAsx12	75302	-00464381	0080287810455	008	10
692	ENSMUSGcAtpa2	246782	002214452	-00402729i-04575	008	10
711	ENSMUSGcAW551984	244810	005358477	-00555859i-02225	027	10
719	ENSMUSGcB3glct	381694	-02824449	001096896i-0495	02175	10
724	ENSMUSGcB4gat1	108902	-01897821	-00297789i-05375	0335	10
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770	ENSMUSGcBcl11a	14025	001379059	0022607320345	03	10
772	ENSMUSGcBcl2	12043	014120677	-00176941i-05625	-01775	10
784	ENSMUSGcBet1	12068	006968813	-01077291i-05275	037	10
812	ENSMUSGcBnip1	224630	003959158	-01081793i-03825	0225	10
813	ENSMUSGcBnip2	12175	000155068	00887778703225	00775	10
821	ENSMUSGcBola2	66162	009787046	-01093049i-03775	0415	10



830	ENSMUSGcBpnt1	23827	008928732	-00895676	0375	04675	10
849	ENSMUSGcBrk1	101314	007028101	-01669376	0405	012	10
870	ENSMUSGcBud13	215051	033233834	030888291057		03225	10
874	ENSMUSGcBzw2	66912	007102936	002546590023		01225	10
894	ENSMUSGcCables2	252966	003334906	000618446037		00475	10
896	ENSMUSGcCacfd1	381356	-01489004	00848281809275		0235	10
957	ENSMUSGcCand2	67088	-00266536	-0241917204275		0155	10
985	ENSMUSGcCask	12361	-00798417	-0018314602625		0305	10
996	ENSMUSGcCat	12359	007635117	-02018869046		01375	10
1003	ENSMUSGcCbfb	12400	002030191	01139060102		01325	10
1005	ENSMUSGcCbfb	208650	-00054037	00366123302575		0275	10
1007	ENSMUSGcCbin1	12404	-01773921	030006485065		016	10
1019	ENSMUSGcCc2d1a	212139	019266267	005629386021		02175	10
1028	ENSMUSGcCc2d120	54648	018147657	0087983870365		0295	10
1047	ENSMUSGcCc2d47	67163	-01650084	01036848204675		-0085	10
1089	ENSMUSGcCd151	12476	-01637008	0137592700535		024	10
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1150	ENSMUSGcCdk19	78334	006058606	-0013317103925		00925	10
1154	ENSMUSGcCdk5	12568	005589395	-00195781.03025		-0025	10
1222	ENSMUSGcChchd4	72170	002239935	-0079876804025		02825	10
1266	ENSMUSGcChst2	54371	000837116	004687575022		0145	10
1284	ENSMUSGcCkap4	216197	-01927695	01608978508		036	10
1315	ENSMUSGcCllp3	76686	011666644	-0058754603225		02075	10
1320	ENSMUSGcCln8	26889	-03132432	012205863075		0315	10
1328	ENSMUSGcClstn1	65945	-01802925	0167693630485		0255	10
1334	ENSMUSGcClu	12759	011292539	01077483204025		01175	10
1349	ENSMUSGcCmtm5	67272	-02224375	-0162867702925		0185	10
1399	ENSMUSGcCoa8	68020	008718833	-01346710056		0465	10
1409	ENSMUSGcCog6	67542	007928872	-0038764403575		04475	10
1441	ENSMUSGcCoph2	50797	013909144	-005315302725		01425	10
1442	ENSMUSGcCope	59042	000077918	-0151833204825		02675	10
1458	ENSMUSGcCoq2	71883	-00125461	-0069795103725		03875	10
1478	ENSMUSGcCox15	226139	-01189979	-01444877042		006	10
1507	ENSMUSGcCpne4	74020	-00753091	00324173404175		-0055	10
1516	ENSMUSGcCpsf1	94230	013279887	-002803170305		0055	10
1517	ENSMUSGcCpsf2	51786	013480426	0041696550345		-00275	10
1522	ENSMUSGcCpt1a	12894	-00414420	-00431379035		01075	10
1526	ENSMUSGcCr11	12946	-00470077	00848371203975		-006	10
1529	ENSMUSGcCradl	72097	005811454	005226203045		01625	10
1561	ENSMUSGcCrybb1	12960	032590334	00529397103325		0315	10
1592	ENSMUSGcCst3	13010	-00406282	-00698565023		02825	10
1593	ENSMUSGcCstb	13014	-00329234	-0225003303225		006	10
1606	ENSMUSGcCtdsp1	227292	011081971	-002671840275		0265	10
1675	ENSMUSGcCyp2d22	56448	012367038	01889877604375		01025	10
1676	ENSMUSGcCyp2j6	13110	-02582148	0122993000975		001	10
1677	ENSMUSGcCyp2j9	74519	017770771	-0048641004675		01425	10
1680	ENSMUSGcCyp4f14	64385	003460761	-0055488503525		01625	10
1690	ENSMUSGcCyth3	19159	009698494	00613156502		017	10
1707	ENSMUSGcDad1	13135	-02395175	-0033241405375		0315	10
1716	ENSMUSGcDars1	226414	004635946	-0225561303825		01575	10
1723	ENSMUSGcDbndd1	72185	016911812	013935541049		01775	10
1736	ENSMUSGcDcackd	68087	018552933	-0069443703225		02175	10
1746	ENSMUSGcDcctn1	13191	016956138	-0077136903225		00275	10
1750	ENSMUSGcDcctn5	59288	-00174256	-0114242002075		02175	10
1752	ENSMUSGcDcctp1	66422	00222099	-017760140285		02125	10
1769	ENSMUSGcDdost	13200	-03425995	00636807008375		0255	10
1785	ENSMUSGcDdx28	71986	000069583	-002941310635		01925	10
1792	ENSMUSGcDdx47	67755	002704474	000607632026		0085	10
1816	ENSMUSGcDennd5b	320560	006935082	00710554402975		00575	10
1821	ENSMUSGcDeptor	97998	019568325	01197189005875		-0045	10
1861	ENSMUSGcDhx36	72162	009843751	01017113702575		01675	10
1869	ENSMUSGcDicer1	192119	000331747	00031524403775		047	10
1875	ENSMUSGcDipk1b	56279	-02989987	-002166220595		0015	10
1908	ENSMUSGcDnaaf5	433956	007757439	0010748340245		00725	10
1926	ENSMUSGcDnajc12	30045	021342045	0074497770245		0115	10
1931	ENSMUSGcDnajc18	76594	-01483977	0069172540565		-0005	10
1945	ENSMUSGcDnal1	105000	012748896	-001685590265		029	10
1960	ENSMUSGcDoc2a	13446	-00062287	-0130801504575		-011	10
1961	ENSMUSGcDoc2b	13447	014335438	00404220906425		-00625	10
1979	ENSMUSGcDopt1b	70028	004824584	0021284360255		00175	10
1999	ENSMUSGcDpy19l3	233115	-00886143	00203534704525		-00475	10
2016	ENSMUSGcDstn	56431	005912925	-0062483704575		01275	10
2054	ENSMUSGcDyntl3	67117	00855161C	-0027785206175		006	10
2068	ENSMUSGcEce2	107522	021581845	0093014960755		03275	10
2087	ENSMUSGcEef1a1	13627	002992064	-016481300375		02275	10
2092	ENSMUSGcEef1e1	66143	-00020033	-0118746405675		-01025	10
2095	ENSMUSGcEef1ec	65967	005054744	-0083226602		02375	10
2128	ENSMUSGcEef1fb	68969	012305967	-0026102606425		012	10
2141	ENSMUSGcEif2s3x	26905	008243918	-013672970325		01075	10
2144	ENSMUSGcEif3b	27979	015184478	-0016595103525		015	10
2146	ENSMUSGcEif3d	55944	002039991	-0105091804525		-00225	10
2147	ENSMUSGcEif3e	16341	002069586	-0048929303475		01275	10
2148	ENSMUSGcEif3f	66085	008874275	-010082460345		01975	10
2154	ENSMUSGcEif3l	223691	-00005914	-0114793405525		-012	10
2155	ENSMUSGcEif3m	98221	004134825	-008430730485		0055	10
2207	ENSMUSGcEmc6	66048	004298973	-0022401304125		027	10
2216	ENSMUSGcEm14	78798	022644801	0009501590325		03675	10
2244	ENSMUSGcEntpd6	12497	-02776120	01188521607475		013	10
2246	ENSMUSGcEogt	101351	-00107719	02911917803675		032	10
2262	ENSMUSGcEpha6	13840	-01578023	01580417905475		0325	10
2271	ENSMUSGcEpm2a	13853	002404945	-00478353066		016	10
2295	ENSMUSGcErgic3	66366	-02445319	-0032161405725		0075	10
2305	ENSMUSGcErp29	67397	-02099412	-0019764205075		-00675	10
2320	ENSMUSGcEva1a	232146	-00725170	01166845002875		00575	10
2326	ENSMUSGcExd2	97827	012204587	013685937039		0285	10
2342	ENSMUSGcExosc5	27998	013968102	-010994540375		01225	10
2350	ENSMUSGcExtl3	54616	-00892788	01026328703775		-00925	10
2362	ENSMUSGcFads1	76267	004181455	-013203560495		-00775	10
2373	ENSMUSGcFam107a	268709	039613802	005308533046		026	10
2406	ENSMUSGcFam217b	71532	009054932	-00001929043		0245	10
2411	ENSMUSGcFam3c	27999	-02958563	00688940106425		00825	10
2421	ENSMUSGcFar1	67420	-00284861	00592871307975		04175	10
2446	ENSMUSGcFbx20	72194	-01380365	0089377920395		03475	10
2449	ENSMUSGcFbx211	225055	008667076	009928752072		046	10
2459	ENSMUSGcFbx206	213499	005046358	-003477630375		026	10
2462	ENSMUSGcFbx206	50762	-01065339	-005836360226		02225	10
2468	ENSMUSGcFbxw8	231672	018784587	-0133235703225		036	10
2476	ENSMUSGcFchs2	207278	004700356	-0100901203675		005	10
2478	ENSMUSGcCfrrf1	14137	-01553500	-02610779028		025	10
2516	ENSMUSGcFip111	66899	010172242	-000654107025		0235	10
2535	ENSMUSGcFlot1	14251	013037058	-01461456037		-0015	10
2536	ENSMUSGcFlot2	14252	004792354	-0146585403575		022	10
2547	ENSMUSGcFmo1	14261	022372444	01123112909275		02925	10
2587	ENSMUSGcFscn1	14086	006941619	-023012860365		01	10
2592	ENSMUSGcFtl1	14325	009372464	001949880465		00975	10
2613	ENSMUSGcFycol	17281	011188356	-0128987705475		0075	10
2619	ENSMUSGcG3bp1	27041	010251583	001123685038		04475	10
2644	ENSMUSGcGad2	14417	-01180288	000580548036		009	10
2661	ENSMUSGcGamt	14431	-00836595	-03431342053		0055	10
2662	ENSMUSGcGan	209239	002814142	003969994022		0195	10
2670	ENSMUSGcGarnl3	99326	021337829	010842598022		0225	10
2684	ENSMUSGcGatm	67092	-00591193	-003774110525		03275	10
2693	ENSMUSGcGca	227960	017730674	-0079436005275		005	10
2702	ENSMUSGcGda	14544	003691323	-0027440007675		04125	10
2704	ENSMUSGcGdap111	228858	004118468	-0080554303925		002	10
2741	ENSMUSGcGid4	66771	017452104	-0045790007775		048	10



2771	ENSMUSGcGlrX	93692	-00643239	-01826978	07325	00925	10
2791	ENSMUSGcGmfb	63985	000321046	-00904350	05825	-00525	10
2800	ENSMUSGcGnai1	14677	-00720096	-00348984	02625	0075	10
2809	ENSMUSGcGnb2	14693	001444022	-01589036	02475	009	10
2810	ENSMUSGcGnb4	14696	00067193c	-00562600	03925	-009	10
2818	ENSMUSGcGng3	14704	006695325	-01705639	02425	0235	10
2825	ENSMUSGcGnpat	14712	00937145c	003113182	05125	0095	10
2832	ENSMUSGcGolga2	99412	014588747	-00088040	0074	04075	10
2839	ENSMUSGcGolm4	73124	-00308284	0023471140245		02925	10
2848	ENSMUSGcGosr1	53334	005569844	-00765651	017025	01875	10
2881	ENSMUSGcGpr180	58245	-01113430	012356352	05975	-005	10
2902	ENSMUSGcGpx7	67305	-00355869	01777247806025		015	10
2903	ENSMUSGcGpx8	69590	-00080199	0176130890475		0275	10
2943	ENSMUSGcGrpel2	17714	-01627079	-01591558	0455	00725	10
2950	ENSMUSGcGsk3a	606496	01158907c	-00240395	03275	00825	10
2969	ENSMUSGcGstz1	14874	017946573	-00609886	02325	02525	10
2970	ENSMUSGcGtdc1	227835	014246355	0092186650475		01575	10
2980	ENSMUSGcGtf2h5	66467	-00020858	-01520577	039	-007	10
2985	ENSMUSGcGtf3c4	269252	023065642	004860221	0345	0005	10
2992	ENSMUSGcGtpbp6	107999	011606099	002086039	0585	02875	10
3049	ENSMUSGcHdac8	70315	000635533	-02554104	0235	02025	10
3062	ENSMUSGcHeatr5a	320487	013731253	008915102044		05575	10
3083	ENSMUSGcHexa	15211	-01026511	000956709	0335	-001	10
3084	ENSMUSGcHexb	15212	-00535137	024648325	0485	043	10
3086	ENSMUSGcHgh1	59053	-02638151	-00774217	04275	01125	10
3107	ENSMUSGcHmbs	15288	000515717	-00883762	03875	-0035	10
3118	ENSMUSGcHmgcs2	15360	015523443	-03702615	04525	04825	10
3156	ENSMUSGcHpca14	170638	027240551	008706291	0495	00975	10
3164	ENSMUSGcHs2st1	23908	-01690330	011654122	0081	021	10
3171	ENSMUSGcHsd17b11	114664	-01320530	017002929	0435	00875	10
3173	ENSMUSGcHsd17b4	15488	015802796	-01128421	00875	02875	10
3177	ENSMUSGcHsd12	72479	005515051	-03224362	0315	025	10
3180	ENSMUSGcHsp90ab1	15516	010597265	-01172033	02475	019	10
3181	ENSMUSGcHsp90b1	22027	-00673692	017629117	04875	02375	10
3200	ENSMUSGcHtatip2	53415	-00326938	-01193548	0375	0185	10
3216	ENSMUSGcIars1	105148	005086353	00654068	028	01175	10
3220	ENSMUSGcIca11	70375	019987755	-00306013	0485	03225	10
3235	ENSMUSGcIfngr2	15980	-01664902	006435428	0535	03475	10
3246	ENSMUSGcIfrr1	12589	010964207	-00941904	0265	02525	10
3271	ENSMUSGcIi16	16170	007793325	030184709	0063	03725	10
3337	ENSMUSGcIpo9	226432	002396325	-01204786	0225	01675	10
3387	ENSMUSGcItnh5	209378	011462525	018389933	0415	01775	10
3432	ENSMUSGcKat2a	14534	019414412	-00187975	0655	-0115	10
3440	ENSMUSGcKbtbd3	69149	-01427731	-01958409	03775	-0065	10
3442	ENSMUSGcKbtbd7	211255	-00093129	02396081	8037	-0065	10
3457	ENSMUSGcKknc4	99738	00586578	02100407	50315	022	10
3480	ENSMUSGcKknc1	16525	-02754920	020200928	07125	0195	10
3503	ENSMUSGcKctd21	622320	023492313	-02590395	04875	03325	10
3515	ENSMUSGcKdm5a	214899	001059797	-00830227	042	026	10
3526	ENSMUSGcKidins220	77480	-01034085	003119122	03225	0025	10
3528	ENSMUSGcKif13a	16553	-00268185	-01263647	0066	-00975	10
3532	ENSMUSGcKif1c	16562	-00029532	-01970808	046	02625	10
3538	ENSMUSGcKif3c	16570	023362103	008058690	0305	033	10
3545	ENSMUSGcKifc3	16582	007468483	000698090	02175	025	10
3553	ENSMUSGcKlhdc10	76788	004936424	-00920428	104	021	10
3556	ENSMUSGcKlhdc4	234825	005676282	-00642011	02225	0155	10
3558	ENSMUSGcKlhdc8b	78267	010043207	009357071	0425	01425	10
3576	ENSMUSGcKpna2	16647	01060244c	030234380	04525	00025	10
3585	ENSMUSGcKrr1	52705	002292623	002459730	0029	0265	10
3587	ENSMUSGcKrtcap2	66059	-01686726	-01099381	04375	0075	10
3591	ENSMUSGcKtn1	16709	-00964791	009045725	0535	00825	10
3691	ENSMUSGcLman2l	214895	000171248	-00485358	0745	0415	10
3709	ENSMUSGcLomp2	66887	015075693	-01366257	04025	0405	10
3712	ENSMUSGcLpcat1	210992	-01594738	007908749	04025	004	10
3719	ENSMUSGcLpp	210126	009689569	003114844	0235	028	10
3743	ENSMUSGcLrrc14	223664	00452262c	-01367370	03175	013	10
3754	ENSMUSGcLrrc59	98238	002490592	-00718222	04325	00525	10
3787	ENSMUSGcLsp1	16985	-03075205	-03573564	055	034	10
3789	ENSMUSGcLss	16987	-00818968	-02860445	04525	006	10
3808	ENSMUSGcLyar	17089	019623956	008388405	0275	018	10
3810	ENSMUSGcLynx1	23936	-00652568	009229201	03075	03125	10
3830	ENSMUSGcMacr1	11426	-02550853	000379399	0079	01975	10
3833	ENSMUSGcMacro2	72899	008682753	-00156295	03625	01275	10
3858	ENSMUSGcMan2a2	140481	-00615272	011851228	0058	02975	10
3906	ENSMUSGcMapk14	26416	015370124	-00228317	034	032	10
3908	ENSMUSGcMapk3	26417	008085072	-00817211	0265	023	10
3957	ENSMUSGcMbn12	105559	-00027464	004897349	04475	0275	10
3958	ENSMUSGcMboat2	67216	-00096626	002653346	0235	018	10
3975	ENSMUSGcMcoln1	94178	-01723524	01626464	0656	0285	10
4009	ENSMUSGcMed19	381379	001131597	-01570677	02775	018	10
4033	ENSMUSGcMetap1	75624	010164069	013854906	02875	0125	10
4070	ENSMUSGcMgst3	66447	-01485221	-01301604	0585	0275	10
4102	ENSMUSGcMix23	381045	001744136	-00811476	042	-00025	10
4104	ENSMUSGcMkrn2	67027	003765992	-00504726	02325	02175	10
4106	ENSMUSGcMlec	109154	005308378	007547843	0485	00125	10
4147	ENSMUSGcMpi	110119	008061302	-00539884	02525	01375	10
4158	ENSMUSGcMpv17l2	234384	-01535279	-00952311	06825	041	10
4171	ENSMUSGcMrpl13	68537	004899073	-01765743	02575	0055	10
4174	ENSMUSGcMrpl16	94063	005128207	-02108905	02825	0185	10
4209	ENSMUSGcMrpl54	66047	-01419821	-03160745	0028	02475	10
4216	ENSMUSGcMrps12	24030	012013495	-00805821	02125	02575	10
4220	ENSMUSGcMrps17	66258	-00253846	-00186811	05225	01125	10
4258	ENSMUSGcMt2	17750	009189689	-02155062	0058	02325	10
4348	ENSMUSGcMyorg	329828	-01352373	015463224	0056	024	10
4367	ENSMUSGcNaaa	67111	-00006408	015820014	003475	00425	10
4388	ENSMUSGcNapb	17957	007971688	-00233142	03325	01075	10
4400	ENSMUSGcNat8l	269642	-00871759	002473374	0415	0305	10
4410	ENSMUSGcNbeal1	269198	-00913837	019104154	04925	0045	10
4430	ENSMUSGcNcln	103425	-01767416	014094189	0062	00525	10
4452	ENSMUSGcNdufa11	69875	-00776373	-02774387	0295	017	10
4497	ENSMUSGcNecab1	69352	000346528	002191391	0028	02025	10
4599	ENSMUSGcNoc3l	57753	018840738	010500884	0335	0055	10
4611	ENSMUSGcNomo1	211548	-01155846	000817489	006075	02325	10
4657	ENSMUSGcNr2f1	13865	019593618	009484968	0375	02675	10
4659	ENSMUSGcNr4a3	18124	008471152	009819570	00545	03875	10
4688	ENSMUSGcNsmf	56876	023258967	009970399	0475	-01275	10
4706	ENSMUSGcNtpcr	66566	-01073037	-01035953	0955	03325	10
4717	ENSMUSGcNucb2	53322	-03082467	-00372666	048	0035	10
4774	ENSMUSGcNvyp1	243300	021565407	008989791	0054	03575	10
4780	ENSMUSGcOciad2	433904	-01369341	001626865	04075	01375	10
4792	ENSMUSGcOla1	67059	-00424636	-01098654	0485	-014	10
4798	ENSMUSGcOma1	67013	006814496	-00908399	07975	01625	10
4817	ENSMUSGcOsbpl10	74486	006080358	-00193099	02475	00925	10
4822	ENSMUSGcOsbpl5	79196	023472629	-00033952	04375	02925	10
4828	ENSMUSGcOsepp	66246	006362304	-02730319	02625	005	10
4882	ENSMUSGcPalm	18483	026998196	020724383	0029	0285	10
4896	ENSMUSGcPaox	212503	-00256644	-00530448	03725	-0035	10
4913	ENSMUSGcPars2	230577	016578393	-00324495	0068	-01	10
4914	ENSMUSGcParva	57342	011526688	-01527944	03	01525	10
4923	ENSMUSGcPbx1	18514	005608713	-00406888	05125	0485	10
4926	ENSMUSGcPcbd2	72562	-00562208	-02423831	04275	002	10
4959	ENSMUSGcPcdhgb1	93699	-01345078	024418062	0066	021	10
4994	ENSMUSGcPdc2	18567	-01588669	-01235731	028	029	10
5028	ENSMUSGcPdia5	72599	-01798225	-00668066	06175	-003	10
5034	ENSMUSGcPdlm1	54132	-01044027	-00578437	0345	01325	10
5068	ENSMUSGcPex10	668173	-00156586	-00173146	0235	00625	10



5069	ENSMUSGCPex11b	18632	-00031014	-00302730	05825	-0045	10
5071	ENSMUSGCPex13	72129	-01119206	00057582	004375	01625	10
5081	ENSMUSGCPex7	18634	003211996	-02013125	045	04175	10
5120	ENSMUSGCPex1	56698	013656504	-00345515	0215	01725	10
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5132	ENSMUSGCPex1	70998	024727217	03055319	7046	005	10
5185	ENSMUSGCPex1	69713	004946927	-02362015	0405	0245	10
5190	ENSMUSGCPex1	72519	-00638500	-00133403	0205	01375	10
5217	ENSMUSGCPex1	27226	-00878566	-00400753	05525	00875	10
5227	ENSMUSGCPex1	18802	020782337	-01038871	10485	0385	10
5287	ENSMUSGCPex1	54712	-00312890	02406257	79036	01375	10
5307	ENSMUSGCPex1	18950	012185105	-00520931	03725	-00325	10
5310	ENSMUSGCPex1	241274	007344219	01155634	025875	01575	10
5340	ENSMUSGCPex1	218832	003141664	00292480	102675	02625	10
5344	ENSMUSGCPex1	26239	-00075561	00630808	06033	03475	10
5352	ENSMUSGCPex1	330260	008033597	-00123460	0305	0005	10
5354	ENSMUSGCPex1	74097	-00794820	-00214798	02575	004	10
5400	ENSMUSGCPex1	19045	-00647010	-02325374	062	022	10
5403	ENSMUSGCPex1	52040	017560797	00881051	18032	02875	10
5411	ENSMUSGCPex1	76142	006987424	-01133087	049	02425	10
5420	ENSMUSGCPex1	228966	012555175	-01097150	03025	-00425	10
5424	ENSMUSGCPex1	100336	004803951	-00457851	103475	003	10
5464	ENSMUSGCPex1	18477	006102442	-02242480	02525	0015	10
5467	ENSMUSGCPex1	53381	-01437114	01139800	04475	00075	10
5476	ENSMUSGCPex1	109294	021142768	-00508645	0548	01825	10
5477	ENSMUSGCPex1	106042	-00125775	01154043	02325	024	10
5501	ENSMUSGCPex1	18760	019345911	013729681	02725	00775	10
5508	ENSMUSGCPex1	15468	009467051	-00405755	047	-01475	10
5513	ENSMUSGCPex1	102182	-00292494	00610066	03285	004	10
5524	ENSMUSGCPex1	66921	-01549145	01776029	04057	019	10
5533	ENSMUSGCPex1	328099	-00043924	-00867704	02925	016	10
5535	ENSMUSGCPex1	67763	-00504162	00969759	0385	04375	10
5584	ENSMUSGCPex1	53380	-00616726	-02723093	06525	03125	10
5595	ENSMUSGCPex1	57296	-00215611	-02104779	0046	02925	10
5625	ENSMUSGCPex1	67103	043910584	-00247144	0415	-00625	10
5675	ENSMUSGCPex1	67959	009149265	-01580606	02475	019	10
5691	ENSMUSGCPex1	19301	008744798	-00960812	0755	01375	10
5692	ENSMUSGCPex1	59038	001080336	-02750969	069	0055	10
5701	ENSMUSGCPex1	68911	009490356	-00242225	04125	00825	10
5712	ENSMUSGCPex1	76563	009317635	00822031	1019	0195	10
5729	ENSMUSGCPex1	104886	017831951	-00519438	03325	0085	10
5733	ENSMUSGCPex1	216344	004685674	-00825190	042	0155	10
5743	ENSMUSGCPex1	76338	01168301C	-00692078	05025	-001	10
5757	ENSMUSGCPex1	226407	016847235	00497964	702875	01625	10
5758	ENSMUSGCPex1	98732	-00020179	-00035475	027	-0025	10
5759	ENSMUSGCPex1	74760	013258755	-00310805	0545	0045	10
5760	ENSMUSGCPex1	216363	004621986	-00195097	706475	0075	10
5768	ENSMUSGCPex1	67388	000640511	00196978	0641	052	10
5790	ENSMUSGCPex1	14694	008728103	-01699796	04975	-0115	10
5818	ENSMUSGCPex1	56705	-00040354	00890278	002825	00325	10
5825	ENSMUSGCPex1	76108	013436673	-00681892	0209	01725	10
5853	ENSMUSGCPex1	71323	-00622678	-00308592	047	00275	10
5884	ENSMUSGCPex1	66704	-00170363	-01435672	02825	01175	10
5898	ENSMUSGCPex1	53901	001808885	-02277646	0525	015	10
5930	ENSMUSGCPex1	67830	-01838105	00499227	806925	0165	10
5971	ENSMUSGCPex1	11848	003195607	-00772375	055	-006	10
5980	ENSMUSGCPex1	69581	017288031	-01358056	039	02525	10
5984	ENSMUSGCPex1	101489	005412345	-00523212	027	033	10
6001	ENSMUSGCPex1	19766	020723896	01471385	7031	0275	10
6003	ENSMUSGCPex1	193385	007988884	00394964	04295	00425	10
6024	ENSMUSGCPex1	29864	005039535	-00177948	028	015	10
6029	ENSMUSGCPex1	75212	-01305906	01983692	80665	021	10
6057	ENSMUSGCPex1	19823	002316923	-01230840	036	023	10
6083	ENSMUSGCPex1	110954	010630641	-00973586	035	022	10
6086	ENSMUSGCPex1	269261	006960977	-01739761	04725	01525	10
6087	ENSMUSGCPex1	270106	00797014C	-01507475	03975	01625	10
6088	ENSMUSGCPex1	22121	017453295	-00875431	0425	00525	10
6089	ENSMUSGCPex1	67115	007208093	-01421314	04775	052	10
6090	ENSMUSGCPex1	66480	003458726	-01644129	041	01125	10
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6092	ENSMUSGCPex1	19899	006757516	-00671058	044	015	10
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6094	ENSMUSGCPex1	19921	007296094	-01406707	06075	0125	10
6095	ENSMUSGCPex1	19933	012456202	-01199006	0255	01225	10
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6097	ENSMUSGCPex1	68028	-00141903	-01539157	05	03475	10
6098	ENSMUSGCPex1	65019	006122162	-01744967	704275	04825	10
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6104	ENSMUSGCPex1	19943	003951942	-02190511	043	04625	10
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6110	ENSMUSGCPex1	68436	011263098	-01099618	03775	-00175	10
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6119	ENSMUSGCPex1	67891	012351137	-00623977	037	01075	10
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6148	ENSMUSGCPex1	16898	011656155	-00958211	05025	01125	10
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6171	ENSMUSGCPex1	20116	015091585	-00695222	05325	0205	10
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6211	ENSMUSGCPex1	68045	002121835	-01408174	0385	046	10
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6316	ENSMUSGCPex1	20284	02368504C	00332644	051	02275	10
6319	ENSMUSGCPex1	217140	002263765	-00227610	0295	027	10
6325	ENSMUSGCPex1	240880	-01336412	00512802	104375	0095	10
6330	ENSMUSGCPex1	53378	004060765	-00481278	031	0295	10
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6364	ENSMUSGcSec61b	66212	-00077339	-01682500	051	0105	10
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6367	ENSMUSGcSec63	140740	-00624182	01187671802925		-004	10
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6468	ENSMUSGcSgpl1	20397	-01340739	012105403038		01625	10
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6558	ENSMUSGcSlc15a2	57738	013340924	02428345606075		00075	10
6561	ENSMUSGcSlc16a10	72472	-05650458	-02632311	06825	02525	10
6589	ENSMUSGcSlc25a1	13358	003017658	-0162142603575		02825	10
6597	ENSMUSGcSlc25a17	20524	-01142209	0118488420455		-017	10
6601	ENSMUSGcSlc25a21	217593	-00814069	-0377167304875			10
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6779	ENSMUSGcSmpd2	20598	-00804789	-0022311203825		00325	10
6782	ENSMUSGcSmpd3a	57319	-01871879	00163524306225		01175	10
6792	ENSMUSGcSnap25	20614	000865375	-0133793406		-013	10
6793	ENSMUSGcSnap29	67474	015076253	-006998970415		0405	10
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6835	ENSMUSGcSnx17	266781	00935128c	-015071680295		02075	10
6843	ENSMUSGcSnx29	74478	-00288451	-0151682002325		01	10
6844	ENSMUSGcSnx3	54198	002024581	-022958270325		-00375	10
6855	ENSMUSGcSod1	20655	-00332712	-0158069404575		02275	10
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6941	ENSMUSGcSrgap2	14270	017544097	01362457202775		03075	10
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7015	ENSMUSGcStau2	29819	008536355	-01311156026		022	10
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7034	ENSMUSGcStk4	58231	021467554	006377015024		00775	10
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7059	ENSMUSGcSsx17	67727	003491204	-00814793	0385	03675	10
7088	ENSMUSGcSumf2	67902	-01442552	0200706150535		033	10
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7169	ENSMUSGcTaf15	70439	006123254	-01847161092		01975	10
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7215	ENSMUSGcTbcd19	67249	011824433	0064070480355		0065	10
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7230	ENSMUSGcTbcd19b	76795	016814618	-006786230345		0215	10
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7376	ENSMUSGcTm9sf3	107358	-02436023	0074593960585		0355	10
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7485	ENSMUSGcTmem87b	72477	-03622454	010649330088		03325	10
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7542	ENSMUSGcTop3b	21976	009503656	00218430303425		01125	10
7549	ENSMUSGcTox2	269389	010636034	-02776694041		00825	10
7553	ENSMUSGcTpcn1	252972	-00825343	-0066396905575		009	10
7558	ENSMUSGcTpgs2	66648	008166175	-00997720	04025	04075	10
7561	ENSMUSGcTpk1	29807	-02191146	-023049960465		01975	10
7567	ENSMUSGcTpp2	22019	001418704	00681287903475		0055	10
7615	ENSMUSGcTrim32	69807	-00004214	-00971849	02625	00375	10
7632	ENSMUSGcTrip4	56404	011909002	0000915930225		00825	10
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7685	ENSMUSGcTspyl1	22110	005001692	-01020378	0405	04325	10
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7713	ENSMUSGcTtl1	319953	001676233	-01782124	06325	00625	10
7714	ENSMUSGcTtl12	223723	026952284	-00808474	02325	01225	10
7725	ENSMUSGcTuba1b1	22143	006377912	-022628660394		-001	10
7739	ENSMUSGcTubgcp4	51885	004976144	00096572403125		-00275	10
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7767	ENSMUSGcTunx43	232223	-00441857	-01188146	02725	02725	10
7776	ENSMUSGcUaca	72565	-00421136	0323516760545		01	10
7799	ENSMUSGcUbe2g2	22213	006663488	-000335330525		01875	10
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7802	ENSMUSGcUbe2j1	56228	000445748	-007678810435		05325	10
7807	ENSMUSGcUbe2n	93765	007245782	-01021705	0265	0005	10
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7861	ENSMUSGcUfsp2	192169	004003425	-01733316	0625	01075	10
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7891	ENSMUSGcUpp1	22271	034362148	021183946057		01175	10
7910	ENSMUSGcUros	22276	00102972c	-00175222029		02625	10
7929	ENSMUSGcUsp32	237898	007631271	-0051293803225		01975	10
7940	ENSMUSGcUsp48	170707	-00325930	-0031078705675		036	10
7964	ENSMUSGcVamp4	53330	006813838	005159897045		0555	10
7967	ENSMUSGcVapa	30960	-00093895	-0143598904375		0025	10
7974	ENSMUSGcVat1	26949	-00676670	-00538220	0605	02	10
7977	ENSMUSGcVav2	22325	00359757c	0153932260255		02375	10
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35	ENSMUSGcAbca1	11303	-01955175	031516063	-00525	-0265	11
38	ENSMUSGcAbca5	217265	-01211934	021512130	-00125	-032	11
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48	ENSMUSGcAbcb9	56325	-03368162	-0066423900875		-021	11
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130	ENSMUSGcAcsl1	14081	-02316101	008960993	-01425	-033	11
132	ENSMUSGcAcsl4	50790	-04626666	03024405503675		-04075	11
133	ENSMUSGcAcsl5	433256	-01308072	017606607	-01075	-0515	11
141	ENSMUSGcActn1	109711	-01441567	013595969	-00375	-04725	11
165	ENSMUSGcAdam22	11496	-02984155	0122088540075		-01975	11



166	ENSMUSGcAdam23	23792	-05052600	008386901	-01825	-0225	11
178	ENSMUSGcAdcy5	224129	-03181793	013800625	-036	-03375	11
192	ENSMUSGcAdgrb3	210933	-01751392	022894229	-01425	-0145	11
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269	ENSMUSGcAjm1	381353	-02827834	007147735	-0265	-031	11
314	ENSMUSGcAlg1	208211	-02941925	009858082	-003	-00125	11
320	ENSMUSGcAlg5	66248	-01854079	013856011	-002	-01025	11
338	ENSMUSGcAmigo1	229715	-01946890	015277605	000375	-0065	11
358	ENSMUSGcAnk3	11735	-02758577	009173715	-015	-0115	11
363	ENSMUSGcAnkle2	71782	-02002344	025817855	-009	00375	11
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393	ENSMUSGcAno8	382014	-01066603	015066891	000775	-007	11
449	ENSMUSGcAplp2	11804	-02187207	007781006	0105	-0135	11
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474	ENSMUSGcArell1	68497	-01100867	012331011	002	-021	11
485	ENSMUSGcArifge3	215821	-00737319	010009223	-0065	-01075	11
490	ENSMUSGcArglu1	234023	-01347100	019727140	-0095	-003	11
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539	ENSMUSGcAr10	56795	-03422023	018212998	0195	-03725	11
578	ENSMUSGcArsa	11883	-01444266	015493391	-0185	-0105	11
585	ENSMUSGcAsah1	11886	-03129248	017788497	-02375	003	11
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633	ENSMUSGcAtl1	73991	-04167337	011336891	0265	-012	11
637	ENSMUSGcAtp11a	50770	-01668327	022725124	01075	-02	11
639	ENSMUSGcAtp11c	320940	-03608836	035534749	0023	-0175	11
644	ENSMUSGcAtp1a1	11928	-02424073	008902594	-00125	-0245	11
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647	ENSMUSGcAtp1b1	11931	-05505797	011970009	-00125	-0195	11
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651	ENSMUSGcAtp2a2	11938	-03283185	013069563	00085	-0225	11
653	ENSMUSGcAtp2b1	67972	-05223947	020133446	-00425	-023	11
654	ENSMUSGcAtp2b2	11941	-03754996	005394553	-011	-03125	11
655	ENSMUSGcAtp2b3	320707	-01684691	036131693	-0065	-019	11
656	ENSMUSGcAtp2b4	381290	-03368110	012131770	0145	-012	11
671	ENSMUSGcAtp6ap1	54411	-02610466	001983165	00225	-0225	11
673	ENSMUSGcAtp6v0a1	11975	-0266179	010303981	-0065	-0075	11
686	ENSMUSGcAtp7a	11977	-00985993	023960205	-01825	-037	11
687	ENSMUSGcAtp8a1	11980	-02789607	019782594	000675	-018	11
688	ENSMUSGcAtp8a2	50769	-03316765	020158633	00235	-0265	11
694	ENSMUSGcAtraid	381629	-01902346	011745308	-00125	-053	11
714	ENSMUSGcB2m	12010	-03272332	-00924419	-0015	-006	11
722	ENSMUSGcB4galt3	57370	-01301007	024037182	785046e-1	-042	11
755	ENSMUSGcBcan	12032	-00835283	010391553	-00025	-009	11
757	ENSMUSGcBcap31	27061	-03658458	-00614203	-0135	-01475	11
786	ENSMUSGcBfar	67118	-01822197	017971900	004	-02475	11
787	ENSMUSGcBgn	12111	-02314710	033374366	-00725	-034	11
798	ENSMUSGcBwm	246229	-01405908	020949334	0033	-0495	11
846	ENSMUSGcBrinp2	240843	-00547521	038995383	-00075	-02175	11
847	ENSMUSGcBrinp3	215378	-02331011	018881468	01225	-05675	11
863	ENSMUSGcBtbd17	72014	-02647005	-01167485	0205	-01825	11
880	ENSMUSGcC1ql3	227580	-03955357	042956881	02625	-019	11
883	ENSMUSGcC2cd2l	71764	-02960283	022489745	0007	-00175	11
898	ENSMUSGcCacna1a	12286	-00233223	024372637	-01	-0215	11
900	ENSMUSGcCacna1c	12288	-03540790	015124362	-0165	-0255	11
902	ENSMUSGcCacna1e	12290	-02742835	020965496	-01325	-01875	11
906	ENSMUSGcCacna2d1	12293	-04992045	020378856	-00925	-0265	11
907	ENSMUSGcCacna2d2	56808	-03789513	-00009347	-00475	-038	11
908	ENSMUSGcCacna2d3	12294	-01930576	016182209	01775	-02575	11
913	ENSMUSGcCacng2	12300	-00628705	025998080	000375	-02425	11
922	ENSMUSGcCadm1	54725	-02046985	009694151	03475	-0245	11
973	ENSMUSGcCard19	68480	-03348473	-00861355	-02525	-0105	11
984	ENSMUSGcCasd1	213819	-04705132	017810300	-045	-04425	11
997	ENSMUSGcCav1	12389	-02305211	030086777	00025	-00325	11
1008	ENSMUSGcCbln4	228942	-01962792	028575630	-03025	-05425	11
1065	ENSMUSGcCckbr	14246	-03675557	010029217	030275	-0145	11
1067	ENSMUSGcCcn2	14219	-06086436	015040843	00025	-01825	11
1092	ENSMUSGcCd200	17470	-03950362	037006468	01525	-016	11
1103	ENSMUSGcCd81	12520	-04207907	002589941	0005	-02625	11
1106	ENSMUSGcCd93	17064	-02335881	-00607218	-0115	-0425	11
1131	ENSMUSGcCdh18	320865	-04732845	021124984	01425	-01375	11
1133	ENSMUSGcCdh2	12558	-01551175	025849870	-235514e-1	-0025	11
1136	ENSMUSGcCdh4	12561	-04283303	003324261	00065	-01825	11
1139	ENSMUSGcCdh7	241201	-02780108	020822064	0009	-03925	11
1140	ENSMUSGcCdh8	12564	-05070262	025588847	01055	-0145	11
1143	ENSMUSGcCdipt	52858	-03284208	007032700	00405	-0195	11
1190	ENSMUSGcCepg7	74201	-01667568	004486363	-012	-00575	11
1191	ENSMUSGcCep11	99712	-03345345	025256988	0045	-0295	11
1200	ENSMUSGcCfap20	14894	-01587402	004969650	000925	-022	11
1217	ENSMUSGcChat	12647	-05177634	-03421565	02125	-018	11
1230	ENSMUSGcChd6	71389	-02131833	003015807	00015	-01	11
1233	ENSMUSGcChdh	218865	-0177334	032752971	-0035	-03975	11
1262	ENSMUSGcChrm3	12671	-02786399	023342970	000275	-015	11
1264	ENSMUSGcChrna4	11438	-03713290	009923749	0003	-00575	11
1265	ENSMUSGcChrb2	11444	-02666131	022679347	02725	-027	11
1280	ENSMUSGcCisd2	67006	-03567150	006530451	0305	-0125	11
1293	ENSMUSGcCicn3	12725	-02297240	004899023	-00625	-02275	11
1294	ENSMUSGcCicn4	12727	-02245611	-006419517	01225	-008	11
1298	ENSMUSGcCldn1	12737	-03828819	028319081	-00925	-012	11
1326	ENSMUSGcClptm1l	218335	-02392703	003438043	01	-02	11
1329	ENSMUSGcClstn2	64085	-03305963	002550256	-0265	-052	11
1353	ENSMUSGcCnep1r1	382030	-02237529	006536757	02075	-01625	11
1361	ENSMUSGcCnmm1	83674	-02951656	007621276	-00975	002	11
1362	ENSMUSGcCnmm2	94219	-02193855	023576464	-00325	-0115	11
1376	ENSMUSGcCnpy3	72029	-03358152	-00165320	0125	-02125	11
1378	ENSMUSGcCnr1	12801	-05989990	027578599	-00225	-006	11
1381	ENSMUSGcCntfr	12804	-03013179	005603500	0004	-002	11
1383	ENSMUSGcCntn2	21367	-05773684	001467005	-0115	-04375	11
1388	ENSMUSGcCntnap1	53321	-02138191	003254251	00025	-03	11
1389	ENSMUSGcCntnap2	66797	-04447561	017338560	000975	-01425	11
1392	ENSMUSGcCntnap5a	636808	-04920342	015358412	000225	-002	11
1403	ENSMUSGcCoch	12810	-04353880	015370392	0305	-0125	11
1495	ENSMUSGcCp	12870	-02073647	028829616	-00875	-0065	11
1496	ENSMUSGcCpd	12874	-04221297	013639252	-00375	-01875	11
1500	ENSMUSGcCpeb4	67579	-03049855	-00555453	-00125	-0125	11
1504	ENSMUSGcCpm	70574	-02040213	076804811	-00675	-02075	11
1540	ENSMUSGcCrhbp	12919	-03988326	001013211	0109	-03725	11
1555	ENSMUSGcCrtac1	72832	-02683273	011828556	0008	-02475	11
1576	ENSMUSGcCsm2	329944	-04411019	-00812951	02	-01325	11
1601	ENSMUSGcCtbs	74245	-03904337	004166492	01075	-02	11
1623	ENSMUSGcCtcb	13030	-03242890	005813416	0145	-00375	11
1653	ENSMUSGcCv3cd1	20312	-03772966	001683095	0205	-00975	11
1664	ENSMUSGcCybsr1	72017	-01549777	015510944	-00225	-005	11
1667	ENSMUSGcCybc1	217370	-02106752	011277242	-018	-02325	11
1682	ENSMUSGcCyp4x1	81906	-03436504	-01050188	03275	-042	11
1693	ENSMUSGcD17H6553l	114585	-03126280	012369672	-0065	-0175	11
1696	ENSMUSGcD430041DI	241589	-02590884	019616963	-013	-0035	11
1697	ENSMUSGcD630045J1	330286	-01379477	041781000	01175	-00575	11
1710	ENSMUSGcDaglb	231871	-02891397	002435461	-009	-0485	11
1741	ENSMUSGcDcn	13179	-02086302	004020810	-00875	-0135	11
1770	ENSMUSGcDdr1	12305	-05174237	015033056	00095	-051	11
1833	ENSMUSGcDgke	56077	-04217968	016030084	02075	-017	11
1852	ENSMUSGcDhrs7	66375	-03416114	004091667	00075	-0325	11
1905	ENSMUSGcDmx1	240283	-00628548	026393561	-008	-0135	11
1906	ENSMUSGcDmx2	235380	-01025104	017616740	0001	-01575	11
1918	ENSMUSGcDnajb14	70604	-01304682	014559495	0024	-009	11



1930	ENSMUSGcDnaje16	214063	-02739699	022376445	02975	-026	11
1990	ENSMUSGcDpm3	68563	-02552419	-00814598-	-00775	-027	11
1991	ENSMUSGcDpp10	269109	-02738030	030017510	01005	-03175	11
1994	ENSMUSGcDpp6	13483	-03190461	010876763	01025	-0145	11
2067	ENSMUSGcEce1	230857	-02795697	015308229	01325	-0285	11
2086	ENSMUSGcEed	13626	-01375701	008567340	0009	-0355	11
2102	ENSMUSGcEfn3	13638	-03529964	018653834	-001	-02475	11
2111	ENSMUSGcEgfr	13649	-02074532	-00603777-	-00325	-038	11
2177	ENSMUSGcElapor2	231014	-03208477	008855685	00625	-005	11
2186	ENSMUSGcElmod1	270162	-07026991	006472561	0022	-013	11
2187	ENSMUSGcElmod2	244548	-02861929	031236296	-01575	-048	11
2192	ENSMUSGcElolv1	54325	-04632490	019446958	000275	-01725	11
2193	ENSMUSGcElolv4	83603	-05373124	014287959	00325	-03325	11
2201	ENSMUSGcEmb	13723	-02563943	011050693	01125	-0355	11
2203	ENSMUSGcEmc10	69683	-02669049	005131261	-01275	00575	11
2223	ENSMUSGcEndod1	71946	-04705817	024380125	01225	-00325	11
2233	ENSMUSGcEnpep	13809	-02435329	055456299	000025	-00475	11
2237	ENSMUSGcEnpp5	83965	-04466747	006243165	01725	-02325	11
2238	ENSMUSGcEnpp6	320981	-08107221	025741382	0005	-07225	11
2241	ENSMUSGcEntpd2	12496	-02313932	008649049	0024	-03225	11
2268	ENSMUSGcEphx1	13849	-03472458	030346212	-0125	-03325	11
2280	ENSMUSGcEps8l2	98845	-02779643	-00678017	02925	-039	11
2282	ENSMUSGcErap1	80898	-02289027	009454870	0101875	-0385	11
2284	ENSMUSGcErbb4	13869	-02826758	026619237	02	-01275	11
2302	ENSMUSGcErmp1	226090	-03055147	017680846	196262e-1	-02025	11
2310	ENSMUSGcEsys1	23943	-01740594	038635676	-01775	-03	11
2311	ENSMUSGcEsys2	52635	-02440560	019638401	0245	-04625	11
2367	ENSMUSGcFaf2	76577	-02631509	008337016		0 -01725	11
2394	ENSMUSGcFam171a1	269233	-01962319	023015664	0003	-01175	11
2408	ENSMUSGcFam234a	106581	-03449565	001756178	01015	-0305	11
2471	ENSMUSGcFcgr1	14129	-03948199	025168731	-0135	-00025	11
2497	ENSMUSGcFgf14	14169	-02377134	-00416023	01975	-03275	11
2518	ENSMUSGcFitm2	228859	-02435572	009947053	0703225	-01075	11
2527	ENSMUSGcFkbp9	27055	-01416210	-00074258-	-002	-023	11
2537	ENSMUSGcFlrt1	396184	-01009732	024248045	-01425	-023	11
2563	ENSMUSGcFolr1	14275	-00489450	054611681	-01025	-05575	11
2572	ENSMUSGcFras1	231470	-06475376	007358596	012	-00625	11
2590	ENSMUSGcFstl4	320027	-05434082	013732042	-00375	-0125	11
2616	ENSMUSGcFzd2	57265	-00186546	076807128	0202975	-03875	11
2629	ENSMUSGcGabbr2	242425	-02520711	013143668	-0095	-018	11
2631	ENSMUSGcGabra1	14394	-07127867	027465555	-02775	-054	11
2642	ENSMUSGcGabrg3	14407	-03700834	028874273	02026	-01825	11
2690	ENSMUSGcGbp5	229898	-00833747	052919192	-02125	-02525	11
2738	ENSMUSGcGgt7	207182	-01552657	010085385	0502625	-01975	11
2766	ENSMUSGcGlimn	170823	-01471932	001020139	000175	-02775	11
2770	ENSMUSGcGhrb	14658	-04873390	013897023	0101975	-01475	11
2783	ENSMUSGcGcm19410	1.01e+08	-01921995	004317702	017	-018	11
2821	ENSMUSGcGng7	14708	-04492751	-00894160	-0105	-019	11
2830	ENSMUSGcGns	75612	-03027492	018677629	010185	-02	11
2862	ENSMUSGcGpc4	14735	-04635342	009416994	000375	-015	11
2884	ENSMUSGcGpr37l1	171469	-03016171	-00114430	0014	-03625	11
2912	ENSMUSGcGria1	14799	-01607119	015790812	01005	-03275	11
2913	ENSMUSGcGria2	14800	-03085958	038530319	-00125	-05875	11
2914	ENSMUSGcGria3	53623	-01972306	019206458	02075	-02725	11
2915	ENSMUSGcGria4	14802	-03982424	-00055080	02175	-02125	11
2916	ENSMUSGcGrid1	14803	-02674778	016632956	000075	-00975	11
2919	ENSMUSGcGrik2	14806	-02553594	017175111	01025	-03625	11
2923	ENSMUSGcGrin2a	14811	-03786988	019534871	000475	-008	11
2924	ENSMUSGcGrin2b	14812	-03788112	020889252	02026	-014	11
2933	ENSMUSGcGrm1	14816	-06289053	024939518	00175	-027	11
2934	ENSMUSGcGrm2	108068	-02998499	000696473	-0195	-03625	11
2936	ENSMUSGcGrm4	268934	-03963022	001398886	-01325	-01225	11
2937	ENSMUSGcGrm5	108071	-04898618	028126629	-0095	-003	11
2949	ENSMUSGcGsg1l	269994	-02370966	003103685	-00225	-0345	11
2997	ENSMUSGcGuf1	231279	-01209372	012076421	-00575	-0055	11
3024	ENSMUSGcHapln1	12950	-04097000	004617618	020275	-0375	11
3026	ENSMUSGcHapln3	67666	-02513629	028713227	03325	-01575	11
3037	ENSMUSGcHcn1	15165	-04006795	019324404	-01375	006	11
3040	ENSMUSGcHcn4	330953	-05937792	001694094	000875	-00425	11
3088	ENSMUSGcHhatl	74770	-03955541	000043302	000025	-03525	11
3116	ENSMUSGcHmgcr	15357	-03535991	-00109747	0195	-00925	11
3125	ENSMUSGcHmmt	140483	-02737493	006842945	-01375	-01725	11
3133	ENSMUSGcHmnpdl	50926	-01659928	015178621	000575	-03	11
3172	ENSMUSGcHsd17b12	56348	-02399152	-00376260	-018	-00625	11
3207	ENSMUSGcHtra1	56213	-02805329	007440295	01975	-01675	11
3222	ENSMUSGcIcam5	15898	-00501013	025270857	000025	-01775	11
3260	ENSMUSGcIclp05	210094	-01889580	003179129	-015	-0095	11
3262	ENSMUSGcIclpf11	207683	-01153588	033871303	-0135	-02525	11
3275	ENSMUSGcIilrapl1	331461	-06262915	023101657	000925	-0075	11
3284	ENSMUSGcIwbl	216136	-03277384	008308672	020275	-01975	11
3306	ENSMUSGcIppp5f	101490	-02769530	-00594226-	-01325	-001	11
3311	ENSMUSGcInsr	16337	-01475414	026778999	0165	-01375	11
3375	ENSMUSGcItgam	16409	-01577915	006949065	-014	-02375	11
3376	ENSMUSGcItgav	16410	-01313551	015733299	00035	-01425	11
3379	ENSMUSGcItgb2	16414	-03641230	-02109453-	-002	-02875	11
3389	ENSMUSGcItm2b	16432	-02199223	011104056	000725	-01325	11
3390	ENSMUSGcItm2c	64294	-03037049	006224204	020275	-01875	11
3410	ENSMUSGcJam2	67374	-01347905	000992614	00055	-022	11
3417	ENSMUSGcJph1	57339	-02295111	004139386	000125	-01575	11
3444	ENSMUSGcKcna1	16485	-03302307	058213342	-02725	-07025	11
3446	ENSMUSGcKcna3	16491	-03342720	043800373	-0005	-01175	11
3449	ENSMUSGcKcnab1	16497	-02915424	-01702384-	-002	-04075	11
3452	ENSMUSGcKcnb1	16500	-01567479	017818583	-0135	-03025	11
3453	ENSMUSGcKcnb2	98741	-04356281	014172087	-03375	-01225	11
3454	ENSMUSGcKcnc1	16502	-03347191	006637064	-019	-04625	11
3455	ENSMUSGcKcnc2	268345	-02640381	013249881	03375	-038	11
3456	ENSMUSGcKcnc3	16504	-03011633	021116247	-019	-04525	11
3459	ENSMUSGcKcnd2	16508	-04837510	022417260	00075	-0255	11
3466	ENSMUSGcKcnh5	238271	-04641369	005103603	-00825	-056	11
3467	ENSMUSGcKcnh7	170738	-04642987	032186793	-01075	-00725	11
3473	ENSMUSGcKcnj11	16514	-01595635	007931906	-012	-0265	11
3476	ENSMUSGcKcnj3	16519	-05012007	004391205	00015	-02775	11
3477	ENSMUSGcKcnj4	16520	-04066707	013054983	-012	0005	11
3478	ENSMUSGcKcnj6	16522	-01072935	047992092	-00725	-02075	11
3484	ENSMUSGcKcnma1	16531	-02392936	017619095	0017	-03525	11
3490	ENSMUSGcKcnq3	110862	-02700001	010588011	-001	-0165	11
3490	ENSMUSGcKcnq5	226922	-03902029	025327739	-0255	01125	11
3493	ENSMUSGcKcnr2	240776	-03637251	028575093	-00175	-01375	11
3494	ENSMUSGcKcnr1	67498	-05800820	013742936	-00425	-05175	11
3500	ENSMUSGcKctd16	383348	-01281321	027229062	-00625	-02275	11
3573	ENSMUSGcKmt2a	214162	-05876530	016283006	-011	-05175	11
3620	ENSMUSGcLarge1	16795	-01740265	023547274	030375	-03675	11
3633	ENSMUSGcLbr	98386	-04042101	023834497	-0305	-024	11
3635	ENSMUSGcLclat1	225010	-03795625	011613046	-0015	-0095	11
3645	ENSMUSGcLemd2	224640	-00574611	01567657	00175	-0255	11
3646	ENSMUSGcLemd3	380664	-03560565	017504362	-0065	-0325	11
3657	ENSMUSGcLgl1	56839	-03708030	016873166	02075	-0555	11
3659	ENSMUSGcLgl3	213469	-04238574	015901799	-00575	-0505	11
3681	ENSMUSGcLingo2	242384	-06381098	-00836425	02325	-00975	11
3682	ENSMUSGcLingo3	237403	-05226602	006278290	-03225	-03775	11
3694	ENSMUSGcLmbrd2	320506	-04373923	014945379	-00925	-0045	11
3704	ENSMUSGcLmtk2	231876	-02835056	006440754	-0125	-0075	11
3715	ENSMUSGcLpcat4	99010	-02533665	000932719	0026	-02	11
3726	ENSMUSGcLrfn1	80749	-01597234	019139105	01625	-02875	11
3728	ENSMUSGcLrfn3	233067	-01222531	026793806	-0075	-038	11
3731	ENSMUSGcLrnf1	321000	-01485932	022961484	0017	-05325	11



3739	ENSMUSGCLrpap1	16976	-03063385	00782053700825	-00125	11
3750	ENSMUSGCLrrc4b	272381	-02967262	02520293400925	-02675	11
3751	ENSMUSGCLrrc4c	241568	-04552469	01594402101925	-03375	11
3758	ENSMUSGCLrrc8a	241296	-01279831	01573029000225	-01725	11
3759	ENSMUSGCLrrc8b	433926	-04137749	019096989-002	-01475	11
3767	ENSMUSGCLrrtm1	74342	-03059053	03628382030375	-031	11
3768	ENSMUSGCLrrtm2	107065	-06299676	03503373400975	-027	11
3769	ENSMUSGCLrrtm3	216028	-04089188	034003476014	-00725	11
3770	ENSMUSGCLrrtm4	243499	-03753734	028398544007	-054	11
3829	ENSMUSGCM6pr	17113	-03879599	006076562-0275	-006	11
3835	ENSMUSGCMacroh2a2	404634	-03513820	-00149639-0125	-0285	11
3853	ENSMUSGCMal2	105853	-04681701	013275034-0015	-007	11
3962	ENSMUSGCMcam	84004	-06770589	-00446909008	-033	11
3979	ENSMUSGCMctp1	78771	-04905108	036480947008	-00575	11
4028	ENSMUSGCMen1	17283	-02492502	012035113-004	-0355	11
4043	ENSMUSGCMetti21a	67099	-03537615	019274742015	-0255	11
4052	ENSMUSGCMffe8	17304	-02037967	01432305402825	-0115	11
4057	ENSMUSGCMfsd10	68294	-02012603	0131068090065	-0035	11
4061	ENSMUSGCMfsd4a	213006	-04754553	014123320-0055	-00175	11
4090	ENSMUSGCMiga1	215708	-01317012	01143558000625	-02325	11
4116	ENSMUSGCMmgt1	236792	-02436066	000760357004	-034	11
4162	ENSMUSGCMrc2	17534	-03646540	017031449-032	-01	11
4264	ENSMUSGCMtar2	67247	-01848044	004707744-00375	-00625	11
4333	ENSMUSGCMylk	107589	-01839244	-0069399000575	-0335	11
4378	ENSMUSGCMaga	17939	-03398505	0063300703375	-02325	11
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4407	ENSMUSGCMbas	71169	-02115224	00315936201975	-00625	11
4413	ENSMUSGCMcam1	17967	-03083064	0105898250365	-04575	11
4420	ENSMUSGCMceh1	320024	-04487716	022321770365	-04225	11
4438	ENSMUSGCMcstn	59287	-03151278	01344389400175	-02725	11
4439	ENSMUSGCMdc1	72787	-01181535	0169383000035	-0215	11
4442	ENSMUSGCMdfip1	65113	-05452165	016533683-011	-02375	11
4502	ENSMUSGCMectin1	58235	-02239915	009393036-023	-02875	11
4511	ENSMUSGCMegr1	320840	-02810731	0147622990155	-02925	11
4523	ENSMUSGCMenf	66208	-02706667	-0145749501275	-03575	11
4526	ENSMUSGCMeto1	246317	-02954705	020571683-011	-01275	11
4527	ENSMUSGCMeto2	74513	-05838896	02238819602475	-00925	11
4528	ENSMUSGCMeu1	18010	-02432900	0222509810345	-05	11
4536	ENSMUSGCMfasc	269116	-02060023	018964258-02025	-0195	11
4558	ENSMUSGCMiban1	63913	-02873964	017687868-01775	-008	11
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4647	ENSMUSGCMptx1	18164	-03164830	029675808-02275	-0095	11
4651	ENSMUSGCMpy1r	18166	-03452138	04008291501625	-021	11
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4672	ENSMUSGCMnrp1	18186	-00741834	033973849004	-03275	11
4673	ENSMUSGCMnrp2	18187	-04188276	0048811760165	-0235	11
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4685	ENSMUSGCMsg2	18197	-04236386	009233794-0305	-01225	11
4698	ENSMUSGCMt5e	23959	-04836154	007505719-01675	-0345	11
4702	ENSMUSGCMtm	235106	-02155317	-0086233800625	-0155	11
4752	ENSMUSGCMup210	54563	-02122853	0091534310155	-0335	11
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4850	ENSMUSGCMp4ha1	18451	-01227915	01501206100575	-0025	11
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4868	ENSMUSGCMpag1	94212	-03093052	016733120-0095	-00125	11
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4950	ENSMUSGCMpcdhb9	93880	-06463183	00100010900675	-0355	11
4957	ENSMUSGCMpcdha7	93715	-01739178	015543915-00725	-00475	11
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4987	ENSMUSGCMpcyo1	240334	-03912996	01713276202075	-0495	11
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5214	ENSMUSGCMpla2g15	192654	-02267949	03070148500425	-00175	11
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5234	ENSMUSGCMplcd3	239318	-03483382	-0156057802125	-04025	11
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5249	ENSMUSGCMplekh3	263406	-03264656	-00033109-033	-02925	11
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5516	ENSMUSGCMprom1	19126	007502375	056037800-0055	-051	11
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5764	ENSMUSGCMrab4b	19342	-02120378	00779764803525	-02875	11
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6038	ENSMUSGCMrnfi50	330812	-02182053	035908294-008	-01425	11
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6387	ENSMUSGcSema4f	20355	-01215728	018842035	01375	-01	11
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6593	ENSMUSGcSlc25a13	50799	-02950894	006406291	-015	-02225	11
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6711	ENSMUSGcSlc7a8	50934	-05183273	007595686	-01025	-024	11
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6713	ENSMUSGcSlc8a2	110891	-03958393	011875544	01014	-02725	11
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6729	ENSMUSGcSlitrk1	76965	-06508155	007867507	02025	-03275	11
6730	ENSMUSGcSlitrk2	245450	-05148024	031849151	0101	-002	11
6732	ENSMUSGcSlitrk4	245446	-05702372	036660209	010175	-025	11
6733	ENSMUSGcSlitrk5	75409	-03740451	034083245	0101625	-0155	11
6762	ENSMUSGcSmg1	233789	-01694550	018569054	-01525	-002	11
6770	ENSMUSGcSmim18	72632	-03693271	-00144811	-03775	-039	11
6783	ENSMUSGcSmpd13b	100340	-07621279	051891064	-0125	-00525	11
6823	ENSMUSGcSntb2	20650	-02815869	-02136174	-00825	-0165	11
6832	ENSMUSGcSnx14	244962	-02618061	023625308	03875	-0375	11
6837	ENSMUSGcSnx19	102607	-02274414	013554419	-00925	-00175	11
6841	ENSMUSGcSnx25	102141	-00774615	023388370	-004	-01175	11
6853	ENSMUSGcSoat1	20652	-01492868	023727907	01575	-035	11
6860	ENSMUSGcSorbs2	234214	-02258252	-00367440	-017	-01025	11
6862	ENSMUSGcSorcs1	58178	-03839298	006804281	-0075	00175	11
6863	ENSMUSGcSorcs2	81840	-04388057	001144573	00015	-03825	11
6864	ENSMUSGcSorcs3	66673	-05322969	-01058461	-005	-0485	11
6866	ENSMUSGcSorl1	20660	-01338450	010078327	000675	-00625	11
6867	ENSMUSGcSort1	20661	-02756990	011184123	0202	-01275	11
6918	ENSMUSGcSprm	212518	-02890143	017628486	-0105	-01675	11
6928	ENSMUSGcSptcl1	268656	-01943445	018143264	00035	-0065	11
6930	ENSMUSGcSqle	20775	-02752681	003198733	02045	-0295	11
6968	ENSMUSGcSrsf7	225027	-00989125	025749439	-011	-03775	11
6988	ENSMUSGcSstr2	20606	-03688078	007513263	000675	-012	11
7016	ENSMUSGcSteap2	74051	-02708306	-00345610	0785046e-1	-018	11
7017	ENSMUSGcSteap3	68428	-03350978	006031537	00095	-005	11
7020	ENSMUSGcStim2	116873	-02913711	029291246	-00175	-013	11
7040	ENSMUSGcStom	13830	-01601233	016400428	0001	-01825	11
7085	ENSMUSGcSulf2	72043	-03410463	026486817	02045	-0105	11
7092	ENSMUSGcSun2	223697	-03836176	010557902	00015	-0115	11
7101	ENSMUSGcSud2	71733	-04195636	013918701	-00015	-00875	11
7103	ENSMUSGcSv2a	64051	-04078378	012487239	-005	-006	11
7104	ENSMUSGcSv2b	64176	-02939495	028324930	03075	-02325	11
7139	ENSMUSGcSyt1	20979	-05547635	015063093	0101625	-01925	11
7141	ENSMUSGcSyt11	229521	-02481202	020911377	-00675	-02725	11
7142	ENSMUSGcSyt12	171180	-02037501	006358788	-0195	-01475	11
7146	ENSMUSGcSyt2	20980	-05170516	002754779	-02275	-06	11
7147	ENSMUSGcSyt3	20981	-03464716	007768758	-00575	-02225	11
7161	ENSMUSGcTacc1	320165	-00871707	007693608	000225	-01125	11
7179	ENSMUSGcTafazln	66826	-01032880	018860694	-01625	-00575	11
7202	ENSMUSGcTasor	218850	001122478	028404185	01	-033	11
7273	ENSMUSGcTecr	106529	-03514318	-00552066	03925	-015	11
7278	ENSMUSGcTenn1	23963	-04438551	021799435	-00325	-0005	11
7314	ENSMUSGcThem6	223626	-04699624	004096430	01011	-01475	11
7332	ENSMUSGcThy1	21838	-04290017	004488152	-005	001	11
7354	ENSMUSGcTimp2	21858	-02671324	0107414754	000775	-00375	11
7380	ENSMUSGcTmbim1	69660	-04038577	-00785390	-0345	-05625	11
7397	ENSMUSGcTmem109	68539	-03292607	016883284	00035	-0425	11
7403	ENSMUSGcTmem121i	94047	-02544031	012041460	01125	-008	11
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7417	ENSMUSGcTmem144	70652	-02430501	013267195	0375	-02125	11
7421	ENSMUSGcTmem151a	381199	-02985811	007016430	000725	-02375	11
7427	ENSMUSGcTmem165	21982	-04958415	00785269	-01	-02675	11
7431	ENSMUSGcTmem175	72392	-01970003	006476452	-0105	-0035	11
7434	ENSMUSGcTmem181a	77106	-03367841	013192011	0006	-00725	11
7446	ENSMUSGcTmem209	72649	-03478238	017687470	0003	-009	11
7448	ENSMUSGcTmem222	52174	-03220065	-01270368	02125	-05075	11
7461	ENSMUSGcTmem259	216157	-01719325	018530993	01017	-037	11
7465	ENSMUSGcTmem30a	69981	-03682274	025764432	-01025	-01275	11
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7488	ENSMUSGcTmem94	71947	-00582579	022196584	-00775	-0325	11
7503	ENSMUSGcTmx2	66958	-03883801	-00172634	-00025	-0015	11
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7505	ENSMUSGcTmx4	52837	-04165339	022197794	000725	-00625	11
7520	ENSMUSGcTorr	21960	-04173617	015860649	01	-04125	11
7543	ENSMUSGcTorr1b	30931	-02368775	009280842	02525	-0315	11
7546	ENSMUSGcTorr1b	30934	-01446359	019800365	01035	-0275	11
7548	ENSMUSGcTorr3a	30935	-03038533	-01273276	01325	-0465	11
7551	ENSMUSGcTpbg	21983	-06627225	022179535	-00975	-02975	11
7566	ENSMUSGcTpp1	12751	-01519240	014074341	0004	-0275	11
7586	ENSMUSGcTram1	72265	-02365402	020136777	-02375	-026	11
7604	ENSMUSGcTrfde	237553	-04282781	018572677	01175	-01175	11
7607	ENSMUSGcTril	66873	-02373110	-00636723	-00525	-033	11
7655	ENSMUSGcTrpv2	22368	-01483942	012652451	-01125	-01075	11
7673	ENSMUSGcTspan15	70423	-03971994	002203044	-235514e-1	-0415	11
7696	ENSMUSGcTtc14	67120	-00730356	030788648	-0125	-01375	11
7748	ENSMUSGcTut4	230594	-02445529	000855975	-017	-0525	11
7756	ENSMUSGcTxndc15	69672	-01614292	018647219	03355	-0205	11
7761	ENSMUSGcTxnlp	56338	-01963642	-00041184	01325	-0135	11
7785	ENSMUSGcUbac2	68889	-02266649	004774405	0026	-0405	11
7820	ENSMUSGcUbe4a	140630	-00907782	015563877	0115	-005	11
7823	ENSMUSGcUbiad1	71707	-01834927	020155171	-004	004	11
7860	ENSMUSGcUfsp1	70240	-04440572	-02239610	-0075	-04375	11
7879	ENSMUSGcUnc5a	107448	-00530225	034723480	01475	-024	11



7881	ENSMUSGcUnc5c	22253	-06436850	00627183900275	-01575	11
7885	ENSMUSGcUnc93b1	54445	-01527961	015506090-02	-016	11
7966	ENSMUSGcVangl2	93840	-04003109	0102319850085	-03275	11
7972	ENSMUSGcVasn	246154	-02647971	028717466-03575	-04875	11
7980	ENSMUSGcVcam1	22329	-02467769	005518588-01075	-02725	11
7981	ENSMUSGcVcan	13003	-03246226	039163352-01	-01125	11
7994	ENSMUSGcVip	22353	-05662692	00994530902775	-01025	11
8006	ENSMUSGcVps13c	320528	-00711937	01842237100575	-00625	11
8052	ENSMUSGcVwc2l	320460	-02979947	042720102011	-014	11
8074	ENSMUSGcWdfy3	72145	-00929297	01395008800775	-017	11
8093	ENSMUSGcWdr44	72404	-02309024	-00054892015	-01475	11
8135	ENSMUSGcXk	22439	-03505383	025791632-02975	-02975	11
8155	ENSMUSGcXxylt1	268880	-04182682	003535239-01975	-02275	11
8264	ENSMUSGcZlyve27	319740	-02052407	014033288-01225	-05	11
19	ENSMUSGcA830018L1	320492	005631661	0068410380055	053	12
21	ENSMUSGcAars	78894	03204372	003579243012	04575	12
22	ENSMUSGcAagab	66939	005567433	-00757197-006	036	12
28	ENSMUSGcAars2	224805	022611684003	7382580025	03625	12
53	ENSMUSGcAbcd1	11666	-01056995	00241852101725	04375	12
55	ENSMUSGcAbcd3	19299	008301314	-01025652-022	0315	12
69	ENSMUSGcAbhd17a	216169	013859745	-00740458-0045	05075	12
71	ENSMUSGcAbhd17c	70178	006965154001	6915530015	05175	12
80	ENSMUSGcAbi2	11352	-00189989	003862387-00725	02725	12
88	ENSMUSGcAcaa1a	113868	002003694	-002596131009	02825	12
106	ENSMUSGcAcbd5	74159	008199020	-0116649001875	03225	12
145	ENSMUSGcActr1a	54130	002624154	-01379918-0045	0465	12
163	ENSMUSGcAdam15	11490	000596395	01960864002525	043	12
167	ENSMUSGcAdam9	11502	-00715879	01363292401775	041	12
187	ENSMUSGcAdgb	215772	-01208387	010208490018	05825	12
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199	ENSMUSGcAdh5	11532	001150881	-01340551-008	03225	12
210	ENSMUSGcAdprm	66358	018375631	0186010930035	0365	12
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218	ENSMUSGcAdss1	11565	-01587748	-00199234-0095	0545	12
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230	ENSMUSGcAgap1	347722	006439730	006150220005	04675	12
247	ENSMUSGcAgt	11606	008456454013	20087600475	04675	12
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266	ENSMUSGcAlmp2	231872	-00261947	-0113416500725	06575	12
278	ENSMUSGcAkap12	83397	005555941	004518955-0105	0455	12
299	ENSMUSGcAldh1a2	19578	021618792	-05725324-021	04525	12
324	ENSMUSGcAlkbh5	268420	011730781	010558887-00125	0595	12
333	ENSMUSGcAlmbra1	228361	-00291753	00964296601	06125	12
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341	ENSMUSGcAmotl1	75723	008285609	-01654813-00575	035	12
361	ENSMUSGcAnkhd1	108857	-00537063	0088785090125	03025	12
362	ENSMUSGcAnkbi1	70797	003289866	010921968-0075	02825	12
366	ENSMUSGcAnkrd13a	68420	0022830901	011174110-00125	03125	12
369	ENSMUSGcAnkrd17	81702	012687123	0078342360145	05225	12
370	ENSMUSGcAnkrd27	245886	019669355	0033527470135	04075	12
374	ENSMUSGcAnkrd34a	545554	009337292	-00500032-01175	03925	12
376	ENSMUSGcAnkrd40	71452	-00062898	-020818450105	035	12
377	ENSMUSGcAnkrd44	329154	-01100170	00435198601225	03875	12
379	ENSMUSGcAnkrd46	68839	012795190	-0072931601625	07625	12
388	ENSMUSGcAnkzf1	52231	012609704005	072944303075	05725	12
394	ENSMUSGcAnp32a	11737	010411893	-01542319-0155	04425	12
398	ENSMUSGcAntkmt	214917	000511736	-00539102012	03	12
429	ENSMUSGcAp4m1	11781	013130478	000576006007	02975	12
432	ENSMUSGcAp5z1	231855	010685312	0125701570085	05125	12
434	ENSMUSGcApba1	319924	018948438	002003257-01025	0415	12
435	ENSMUSGcApba2	11784	-02236158	006095252-0075	0385	12
441	ENSMUSGcApc2	23805	001691926	-00189595-01425	03925	12
443	ENSMUSGcApex1	11792	003430707	-01084773-0135	07425	12
455	ENSMUSGcApoe	11816	001809845	003244428008	02575	12
456	ENSMUSGcApoh	11818	008783468	-01507379-0075	04375	12
460	ENSMUSGcAppbp2	66884	000383215	-00827768-03875	06275	12
469	ENSMUSGcAraf	11836	-00849560	-00363004-0265	066	12
478	ENSMUSGcArf5	11844	-00478634	-01136471-00725	03825	12
504	ENSMUSGcArhgap32	330914	005199281	01577550200325	0475	12
505	ENSMUSGcArhgap33	233071	017295954	0081257980135	06075	12
523	ENSMUSGcArhgef25	52666	030091541	005141801-0035	02925	12
537	ENSMUSGcArh2	23807	-00298624	0044367810005	04275	12
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561	ENSMUSGcArmcx4	1.01E+08	-00107594	01335834000425	0295	12
573	ENSMUSGcArpp19	59046	-00068141	-01238598-01875	046	12
593	ENSMUSGcAscc2	75452	011548806	-00745972-0045	06375	12
594	ENSMUSGcAscc3	77987	008960718	0094262560115	03525	12
596	ENSMUSGcAsh2l	23808	-00328355	-00842663-01875	04075	12
614	ENSMUSGcAtat1	73242	-00228789	-009634770015	034	12
615	ENSMUSGcAtcay	16467	-01462256	010888438-0035	0445	12
616	ENSMUSGcAte1	11907	005972766001	714481-00775	03425	12
618	ENSMUSGcAtf7lp	54343	009362206	00409732802075	0675	12
620	ENSMUSGcAtg12	67526	006851725	-0192908001425	03125	12
652	ENSMUSGcAtp2a3	53313	-00209336	001211675-005	03925	12
661	ENSMUSGcAtpsf1e	67126	007844314	-0262171300625	03325	12
683	ENSMUSGcAtp6v1g1	66290	001850144	-00626817-0015	03475	12
693	ENSMUSGcAtpscmt	68073	007666349	00665801010195	03075	12
702	ENSMUSGcAtxn2l	233871	012057330	014306538-0095	0405	12
703	ENSMUSGcAtxn3	110616	008284910	009488763-004	0455	12
704	ENSMUSGcAtxn7l3b	382423	008739964	-010181730085	043	12
706	ENSMUSGcAup1	11993	-00995896	010277220-0035	036	12
707	ENSMUSGcAurkaip1	66077	-00104117	-02500552-034	06675	12
708	ENSMUSGcAven	74268	006127153	-00499649-00275	028	12
726	ENSMUSGcB9d1	27078	-00637383	-0132782900625	05175	12
739	ENSMUSGcBaiap3	545192	034932223	00159094103525	07575	12
785	ENSMUSGcBex2	12069	-01373682	-02629672l-023	053	12
789	ENSMUSGcBicd2	76895	001579037	0139251440225	02825	12
795	ENSMUSGcBin3	57784	-01331997	-00246042l-01125	0445	12
796	ENSMUSGcBirc2	11797	-00325654	-00023127-00825	06275	12
806	ENSMUSGcBmp2k	140780	-01901032	-00241077l-00275	05875	12
808	ENSMUSGcBmpr1b	12167	-00836334	-0209096700055	044	12
825	ENSMUSGcBorcs6	71923	004989137	-0072628200025	031	12
826	ENSMUSGcBorcs7	66439	009523649	-0111093201575	02675	12
832	ENSMUSGcBptf	207165	004375018	015923407-00175	0425	12
858	ENSMUSGcBg3	12215	-02400223	0052238730005	05575	12
867	ENSMUSGcBg13	218490	-00197704	-02009236-00125	06325	12
868	ENSMUSGcBg13l4	70533	-02159039	-00479867-0115	057	12
879	ENSMUSGcC1qc	12262	-01600423	01307924801975	057	12
884	ENSMUSGcCc2cd4c	237397	025386775	000181971-01175	03125	12
904	ENSMUSGcCacna1h	58226	002370505	024468817-009	0575	12
951	ENSMUSGcCamsap1	227634	013182955	002105963-0095	03	12
955	ENSMUSGcCamta2	216874	02660179300971	494801025	0315	12
969	ENSMUSGcCaprin1	53872	011810475001	83492401825	02425	12
989	ENSMUSGcCasp3	12367	001868920	00088508901625	05425	12
993	ENSMUSGcCaso2	12373	-03589443	-0332891900925	055	12
995	ENSMUSGcCastor2	80909	024809606	017773038-005	03525	12
1000	ENSMUSGcCavin3	109042	018548737	-02259639-017	06425	12
1001	ENSMUSGcCbarp	1.01E+08	-01380525	0212076210065	05775	12
1006	ENSMUSGcCbl1l	104836	-01590323	-00012304-00775	0315	12
1020	ENSMUSGcCc2d1b	319965	006104952	-00752628l-01425	04	12
1024	ENSMUSGcCc2d106	232821	007860068	-00343619-0045	05275	12
1035	ENSMUSGcCc2d149	1.01E+08	008236127	-01446642-01175	0385	12
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1041	ENSMUSGcCc2d25	67179	012311537	-00451486017	06075	12
1056	ENSMUSGcCc2d88c	68339	-02477187	-01796933-006	0475	12
1071	ENSMUSGcCcmt1	12455	-00538961	0099075490055	0645	12



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1095	ENSMUSGCD2bp2	70233	004163146-01244912/02775	07525	12
1118	ENSMUSGCDc42	12540	001737755-01481195-01025	04075	12
1124	ENSMUSGCDc42se2	72729	000547161-00866828/018	0335	12
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1152	ENSMUSGCDck2ap1	13445	006245184-00757998/026	0525	12
1156	ENSMUSGCDck5r2	12570	011922225-003954168-00575	03975	12
1158	ENSMUSGCDck7	12572	-00708315-00031921/-0005	06075	12
1162	ENSMUSGCDcn1b	12576	010646744/015556004/00375	06025	12
1165	ENSMUSGCDcr2l	237988	-00421779-00732781/0145	03075	12
1169	ENSMUSGDCetbpz	12607	02343871/007342054/029	076	12
1172	ENSMUSGDCelf2	14007	00487823/011886609-00875	031	12
1174	ENSMUSGDCelf4	108013	016210685/016801795-0015	0345	12
1201	ENSMUSGDCfap298	68001	-00348943-01067692/024	0495	12
1208	ENSMUSGDCfh	12628	007348605/02746568/01	05325	12
1213	ENSMUSGDCgref1	68567	-03454869-01464979/02975	06725	12
1219	ENSMUSGDCchcd10	103172	-00265678-02789022-01075	057	12
1229	ENSMUSGDChd5	269610	02936689/003604438/033	053	12
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1335	ENSMUSGDCluh	74148	011321183/005756415/02125	03325	12
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1350	ENSMUSGDCmtr1	74157	001211477/015838553-01325	0555	12
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1424	ENSMUSGDCol6a2	12834	-02824947-00025194/00725	048	12
1438	ENSMUSGDComtd1	69156	-01782153/000444047-01425	04	12
1439	ENSMUSGDCopa	12847	005931011-01264726/0105	05575	12
1440	ENSMUSGDCopb1	70349	-00525517/012541923/0045	03	12
1445	ENSMUSGDCoprs	66423	007755772-00446720/02375	0445	12
1452	ENSMUSGDCops7b	26895	007643682-00354119-01375	03275	12
1465	ENSMUSGDCoq8b	76889	00578871C/004358236/024	0565	12
1476	ENSMUSGDCox11	69802	-00964044-008650061/01675	05775	12
1477	ENSMUSGDCox14	66379	001463486-02008570/01	06375	12
1481	ENSMUSGDCox19	68033	008965224-00185889-02025	051	12
1482	ENSMUSGDCox20	66359	-00586634-01604063/01425	038	12
1509	ENSMUSGDCpne6	12891	046946436/004342994/01625	03775	12
1514	ENSMUSGDCpped1	223978	-00388867-02097822/01025	0455	12
1515	ENSMUSGDCpq	54381	-02074588-00421170/-006	02925	12
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1528	ENSMUSGDCracd	320827	011582725-00028695-00225	04025	12
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1537	ENSMUSGDCreld1	171508	-02791425/011213091-01025	04625	12
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1543	ENSMUSGDCrip2	68337	001523592-01028105/02675	039	12
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1553	ENSMUSGDCrot	74114	015153937-01286003/03025	06275	12
1559	ENSMUSGDCry2	12953	013823236/015764962/00975	0395	12
1571	ENSMUSGDCsde1	229663	000685859-00748823/314018e-1	03625	12
1573	ENSMUSGDCsf1r	12978	-00890955/022361227/02175	04525	12
1595	ENSMUSGDCstf2	108062	009737154/010128635/0125	03825	12
1602	ENSMUSGDCtcl	68964	011241302/018854940/00775	05325	12
1605	ENSMUSGDCtdp1	67655	004158028-00165098/00175	02675	12
1607	ENSMUSGDCtdspl	69274	00637115C/002789110-00275	0645	12
1610	ENSMUSGDCtif	269037	021677085/015762625/002	035	12
1616	ENSMUSGDCtnnbl1	66642	001980887-01936134/0135	03	12
1617	ENSMUSGDCtnnd1	12388	-00523582-01187265/00075	03	12
1635	ENSMUSGDCtu1	233189	-00494044/003781619/01075	0645	12
1647	ENSMUSGDCutc	66388	012530793/001236302-00975	05975	12
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1771	ENSMUSGCDdrgk1	77006	-01199512-00436266/022	0735	12
1773	ENSMUSGCDdx1	104721	008267321-01254678/016	02875	12
1778	ENSMUSGCDdx19b	234733	005632383-00118240/-00425	07175	12
1783	ENSMUSGCDdx25	30959	018048651-00438754/0055	05575	12
1790	ENSMUSGCDdx42	72047	004083275-00910257/-01375	04725	12
1800	ENSMUSGCDdx6	13209	008393724/000898262/0165	0275	12
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1856	ENSMUSGCDhxc16	69192	016676602/004379270-00125	038	12
1857	ENSMUSGCDhxc29	218629	028657427/003961538/0175	0405	12
1865	ENSMUSGCDhxe9	13211	014927902-00926025/01925	04	12
1881	ENSMUSGCDisp2	214240	-02693258/017387477-02125	05375	12
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1911	ENSMUSGCDnaja1	15502	001238263-00187771-01425	0365	12
1929	ENSMUSGCDnajc15	66148	003447399-00398128-0115	06675	12
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1936	ENSMUSGCDnajc27	217378	014176200-00226210/-00325	0405	12
1939	ENSMUSGCDnajc30	66114	-00265718-01848368-0005	03875	12
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1957	ENSMUSGCDnph1	381101	00860799C-00298161/01575	041	12
1969	ENSMUSGCDock6	319899	018946239/022939086/01225	07225	12
1972	ENSMUSGCDohh	102115	-00260636-01817854/0035	0375	12
1974	ENSMUSGCDok6	623279	010002355/014857230-002	0305	12
1982	ENSMUSGCDpf1	29861	005420243/000927051-00175	0415	12
1984	ENSMUSGCDph1	116905	004104998/002803428/0045	056	12
1995	ENSMUSGCDpp7	83768	008377668/012509400-01175	03025	12
2004	ENSMUSGCDpysl3	22240	011220484/003452363/009	066	12
2006	ENSMUSGCDpysl5	65254	014674044-00523025-0015	039	12
2008	ENSMUSGCDrap1	66556	001636791-01819971-02275	0505	12
2025	ENSMUSGCDus2	66369	000626688-02530453/01475	084	12
2026	ENSMUSGCDus3l	224907	022171705/013702156-00775	058	12
2028	ENSMUSGCDusp15	252864	001043163-00154796/00675	0265	12
2030	ENSMUSGCDusp23	68440	016870377/010339887/00375	027	12
2046	ENSMUSGCDync2h1	110350	-01054008/011320469/01075	03525	12
2053	ENSMUSGCDynt1a	1E+08	00654226C/006819097-022	0585	12
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2084	ENSMUSGCEdr1g	214764	018377558/009827071/02925	06425	12
2093	ENSMUSGCEdr1g	67160	009776962-01013431/-004	0525	12
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2130	ENSMUSGCEf2ak2	19106	005392304-01367624/0215	04525	12
2134	ENSMUSGCEf2b2	217715	001372622-00965938-008	02925	12
2139	ENSMUSGCEf2s1	13665	00847872C/00182326/01375	0285	12
2143	ENSMUSGCEf3a	13669	014542845-00064812/018	0335	12
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2153	ENSMUSGCEf3k	73830	000104772-02078717/-00475	03625	12
2156	ENSMUSGCEf4a1	13681	000681352-00392050/-0065	02775	12
2175	ENSMUSGCElac2	68626	019415077-00032410/01625	0255	12
2194	ENSMUSGCElov15	68801	-03526431-00297751/0135	066	12
2197	ENSMUSGCElp3	74195	006675533-01918314/01025	04525	12
2214	ENSMUSGCEml2	72205	003632339/009515223/0155	03175	12
2219	ENSMUSGCEmp2	13731	007107997-03578434/-0115	03625	12
2225	ENSMUSGCEndou	19011	-02867037/-0132679/02275	07825	12
2270	ENSMUSGCEphx4	384214	-02286540/002807820/01325	07125	12
2272	ENSMUSGCEpm2aip1	77781	002668914/003166856/01675	045	12
2276	ENSMUSGCEprs1	107508	003456026-01462960/02025	034	12
2288	ENSMUSGCErrcc4	13871	01673748C/001714671/0015	06	12
2290	ENSMUSGCErrcc2	50505	014358916/004777492/00075	04325	12
2325	ENSMUSGCEwsr1	14030	-00570136-00473963/-0115	06475	12



2343	ENSMUSGcExosc7	66446	004054423-01579311-00875	03975	12
2345	ENSMUSGcExosc9	50911	008401467-01674830019	037	12
2371	ENSMUSGcFalm	23873	-00285071-01228071003	0375	12
2376	ENSMUSGcFam114a1	68303	009627247-0104276302425	035	12
2378	ENSMUSGcFam117b	72750	003516217001555278-0185	03675	12
2379	ENSMUSGcFam118a	73225	-00195324 007269635-00025	0415	12
2396	ENSMUSGcFam171b	241520	-003186750155825970075	03125	12
2403	ENSMUSGcFam20c	80752	-01629192 0284549940045	045	12
2418	ENSMUSGcFam98a	72722	013560803003089142012	04525	12
2419	ENSMUSGcFam98b	68215	-00090208 -00687904 0085	0335	12
2420	ENSMUSGcFam98c	73833	-00079566 -00694169- 000875	0345	12
2425	ENSMUSGcFarsa	66590	-00061698 014028680006	02675	12
2434	ENSMUSGcFbhl1	50755	018656477014787486-017	04025	12
2437	ENSMUSGcFbhl1	14114	-01269164 021730901-00125	03725	12
2443	ENSMUSGcFbwl17	50755	011946837-0000418201375	06825	12
2444	ENSMUSGcFbwl18	231863	022123033018464358-00225	04175	12
2448	ENSMUSGcFbw10	269529	-00445774 013967144005	0525	12
2452	ENSMUSGcFbw22	71999	009095586-00671254-009	03425	12
2454	ENSMUSGcFbw30	71865	008720902000525625-0025	03275	12
2461	ENSMUSGcFbw45	268882	0201025240033805610065	02825	12
2484	ENSMUSGcFem1b	14155	0256942440118253110305	04825	12
2485	ENSMUSGcFem1c	240263	-00608184-00510836-011	05375	12
2509	ENSMUSGcFhl2	14200	004430691-01556328017	03325	12
2528	ENSMUSGcFkbp1	56299	009307993-01968841-0115	0345	12
2543	ENSMUSGcFmn2	54418	-00030393-00132753 0015	03825	12
2549	ENSMUSGcFmr1	14265	-00068985 012031455011	03125	12
2554	ENSMUSGcFnbp11	214459	01325330c01941819201175	03975	12
2575	ENSMUSGcFrm4a	209630	-00866933 -01393478-004	031	12
2579	ENSMUSGcFrm4p1	666060	025495554-03386830 -01425	055	12
2593	ENSMUSGcFto	26383	006170768-01541213-017	03525	12
2596	ENSMUSGcFubp1	51886	-00501911009948081-0205	0555	12
2602	ENSMUSGcFus	233908	-00747724-007725770115	03375	12
2620	ENSMUSGcG3bp2	23881	003140466-00064324007	046	12
2630	ENSMUSGcGabpa	14390	010736262-00287413-02475	04175	12
2685	ENSMUSGcGba2	230101	01100668401668089402075	03675	12
2715	ENSMUSGcGemin7	69731	009967371-00220506 005	0445	12
2744	ENSMUSGcGigyf2	227331	0265756640061696460195	067	12
2745	ENSMUSGcGipc1	67903	00639224 -012300270155	0325	12
2784	ENSMUSGcGm20517	1.13E+08	-01901288 0154969410105	04425	12
2789	ENSMUSGcGmeb1	56809	-00223072 -00026293 -00725	042	12
2808	ENSMUSGcGnb1	14688	009791558-009975460165	036	12
2819	ENSMUSGcGng4	14706	002208105-0063736201825	0425	12
2823	ENSMUSGcGnl3	30877	0029870401090500000125	03225	12
2831	ENSMUSGcGolga1	76899	011233124008307008016	0295	12
2834	ENSMUSGcGolga4	54214	-00017764-00799754-00225	034	12
2841	ENSMUSGcGolp3	66629	007135073-014825980035	0295	12
2844	ENSMUSGcGopc	94221	-00506409 00295846400675	02575	12
2845	ENSMUSGcGorab	98376	-01872214 -003206360205	041	12
2854	ENSMUSGcGpam	14732	018836946-0005441700675	04	12
2863	ENSMUSGcGpc5	103978	00266497 009361719-007	03	12
2864	ENSMUSGcGpc6	23888	01920236501798927701475	03375	12
2870	ENSMUSGcGpkow	209416	005393733-0110172902525	0545	12
2874	ENSMUSGcGpn1	74254	009405564-01487970-00225	0515	12
2888	ENSMUSGcGprasp1	67298	009351543007242248-0125	04525	12
2896	ENSMUSGcGpsm1	67839	004172633-00415421-004	02925	12
2898	ENSMUSGcGpt2	108682	03485386101136471303075	06325	12
2907	ENSMUSGcGrb10	14783	0104752960145242900475	049	12
2918	ENSMUSGcGrik1	14805	00191501602317557300675	0765	12
2925	ENSMUSGcGrin2d	14814	-00426866 01509667000125	03725	12
2971	ENSMUSGcGtf2a1	83602	-00715222 002878599-01025	03825	12
2973	ENSMUSGcGtf2b	229906	008850066-001197910005	061	12
2974	ENSMUSGcGtf2e1	74197	008888815-0186730300175	073	12
2987	ENSMUSGcGtpbp1	14904	014508921-00172230 00275	07625	12
3013	ENSMUSGcHabp4	56541	010702806-0112801702175	03325	12
3017	ENSMUSGcHac1	56794	-00146522 -0520808103775	05925	12
3022	ENSMUSGcHaghl	68977	001952648-00200558-01275	033	12
3023	ENSMUSGcHap1	15114	020299028005286421-00025	029	12
3039	ENSMUSGcHcn3	15168	-01709159 -00461845007	04775	12
3053	ENSMUSGcHdgl	15191	004468615-00765242-00325	057	12
3059	ENSMUSGcHdlbp	110611	0190214 00189032601975	032	12
3064	ENSMUSGcHeatr6	217026	006268728001176879-01875	05375	12
3067	ENSMUSGcHeca	380629	014159632018983349-01375	038	12
3074	ENSMUSGcHelz	78455	008285597009172482-01725	0345	12
3091	ENSMUSGcHid1	217310	-00220221-00593803-00425	03775	12
3093	ENSMUSGcHigd1a	56295	001094563-02016259-0155	0565	12
3111	ENSMUSGcHmgb1	15289	00680607c-00407765-00975	049	12
3113	ENSMUSGcHmgb3	15354	-01637168 -01515336-00075	0495	12
3140	ENSMUSGcHmrrnp1l	72692	-01250468 -01133127-01375	036	12
3144	ENSMUSGcHmrrnpul1	232989	005471238-00788676 00725	0405	12
3178	ENSMUSGcHsf1	15499	0195412580992919502	03075	12
3201	ENSMUSGcHtatsf1	72459	014116171-00973749-0205	0385	12
3212	ENSMUSGcHykk	235386	008121911-00501488011	0415	12
3223	ENSMUSGcIcm1	57295	-01234339 012935752-009	04075	12
3232	ENSMUSGcIffo1	320678	-01911785 00265852500925	0445	12
3241	ENSMUSGcIf46	76568	-00354992 -01869713 0165	05275	12
3247	ENSMUSGcIf88	21821	005996196014196234-021	0535	12
3253	ENSMUSGcIgfbp5	16011	00605086200706416203175	0485	12
3254	ENSMUSGcIgfbp6	16012	-02593105 -021279080055	0355	12
3257	ENSMUSGcIghm	16019	039305995005132239-01575	037	12
3261	ENSMUSGcIgsf1	209268	-04090915 -05413602024	07075	12
3283	ENSMUSGcIlrun	224647	016592451-00309465-03125	064	12
3304	ENSMUSGcInpp5d	16331	02499095602812621502825	079	12
3331	ENSMUSGcIpo11	76582	006199654-00918154-00775	0485	12
3332	ENSMUSGcIpo13	230673	-00452068 -00100887-00225	0355	12
3333	ENSMUSGcIpo4	75751	010588115-01204603007	02975	12
3341	ENSMUSGcIqsec1	232227	013425161007680356-0015	04575	12
3351	ENSMUSGcIrgq	210146	01952393200515884100425	03775	12
3360	ENSMUSGcIsoc1	66307	00119112600104831201125	04725	12
3377	ENSMUSGcItgb1	16412	-00980474 014814405-00725	0305	12
3420	ENSMUSGcIpt1	15374	005038748-0124703101075	047	12
3421	ENSMUSGcIpt2	52009	-00578889-00605374-004	07575	12
3422	ENSMUSGcIrb	23922	-00982635 00778129700175	0685	12
3431	ENSMUSGcKars1	85305	004260128-02083014-00025	05275	12
3433	ENSMUSGcKats	81601	005805038-00478984-002	0555	12
3481	ENSMUSGcKcnk10	72258	-02064046-00415470 01925	04325	12
3487	ENSMUSGcKcnk3	140493	-02196247 -014029890045	03225	12
3495	ENSMUSGcKctd1	106931	00862049001205859502275	03	12
3497	ENSMUSGcKctd12	239217	00622555103037073900125	0595	12
3504	ENSMUSGcKctd3	226823	015228878-00208412-00325	03525	12
3513	ENSMUSGcKdm3b	277250	006568766-00266235-0125	047	12
3524	ENSMUSGcKhynyn	219094	00446756101218223600875	06925	12
3525	ENSMUSGcKhrrp	16549	016842317003318454-00575	0525	12
3536	ENSMUSGcKlf3a	16568	014874742000065312-027	052	12
3543	ENSMUSGcKlfbp	72320	002994586-01614080-0055	041	12
3544	ENSMUSGcKlf2	16581	014476065001969411-01675	036	12
3555	ENSMUSGcKlhdc3	71765	018371165-00910694-0245	04875	12
3564	ENSMUSGcKlhl22	224023	016557854-002542180065	03	12
3570	ENSMUSGcKlhl5	71778	00602542c-01650257-005	062	12
3575	ENSMUSGcKpna1	16646	-00737573 014446562-02	04725	12
3590	ENSMUSGcKti12	100087	002594051010708976-006	05225	12
3604	ENSMUSGcLamb1	16777	00445336103038348601775	05525	12
3623	ENSMUSGcLarp4	207214	-00583438 0097707080085	03225	12
3624	ENSMUSGcLarp4b	217980	009266947-00035889-023	06875	12
3625	ENSMUSGcLarp6	67557	-00539666 -02734954 01075	03	12
3626	ENSMUSGcLarp7	28036	-01509250 -01311952-02075	04875	12
3629	ENSMUSGcLas1l	76130	017718561-00221867-00575	052	12



3638	ENSMUSGCLdah	68832	-00162623	-01941485	-03475	0535	12
3666	ENSMUSGCLias	79464	-00458083	-01433034	-00035	02975	12
3668	ENSMUSGCLig3	16882	011008358	-00223993	0001	03625	12
3669	ENSMUSGCLima1	65970	009278908	019348084	-00025	04075	12
3671	ENSMUSGCLimd1	29806	-00303085	-00642079	01475	06275	12
3674	ENSMUSGCLimk2	16886	01523531C	003292665	-013	04325	12
3675	ENSMUSGCLims1	110829	002894976	007863840	-00725	03675	12
3677	ENSMUSGCLin7b	22342	-00938667	-00834063	-00525	042	12
3685	ENSMUSGCLipt1	623661	007616883	021586116	0115	05675	12
3687	ENSMUSGCLix1	66643	009353315	-02431945	-00925	038	12
3737	ENSMUSGCLrhp6	16974	-00218938	018192811	01475	044	12
3763	ENSMUSGCLrrflp2	16978	026984544	-00408215	-00975	06075	12
3764	ENSMUSGCLrrflp2	21268	006179298	-00549875	0065	0285	12
3774	ENSMUSGCLsg1	224092	009057323	-00242182	00825	0385	12
3776	ENSMUSGCLsm11	72292	032841911	-00322795	-01225	04325	12
3778	ENSMUSGCLsm14a	67070	003421196	-00317386	00125	03075	12
3779	ENSMUSGCLsm14b	241846	012731406	003096935	00725	026	12
3785	ENSMUSGCLsm7	66094	-00241874	-02492307	01	02925	12
3791	ENSMUSGCLtbp4	108075	017113948	037186350	-0075	066	12
3793	ENSMUSGCLuc7l	66978	-00729137	011396716	0039	05125	12
3797	ENSMUSGCLurap1	68075	004706153	-00878559	-01675	047	12
3832	ENSMUSGCLmacrod1	107227	006195236	-02472137	01425	03525	12
3840	ENSMUSGCLmaea	59003	004850207	-00885962	00725	0305	12
3841	ENSMUSGCLmafg	17134	016598451	018973766	014	07125	12
3859	ENSMUSGCLman2b1	17159	-00013389	030336954	0029	049	12
3879	ENSMUSGCLmap2k5	23938	008090256	001572429	-00525	03825	12
3884	ENSMUSGCLmap3k12	26404	019760629	00369384	00825	027	12
3890	ENSMUSGCLmap3k7	26409	005449364	-00184527	0105	036	12
3895	ENSMUSGCLmap4k4	26921	-00336382	-02420566	00675	0655	12
3911	ENSMUSGCLmapk8	26419	000920191	-01061818	-0095	03475	12
3912	ENSMUSGCLmapk8ip1	19099	013488417	-00370314	-011	0295	12
3919	ENSMUSGCLmapre1	13589	003428568	-01959843	00375	03775	12
3922	ENSMUSGCLmapt	17762	008851953	-01522162	-01575	0435	12
3929	ENSMUSGCLmark1	226778	017772428	-00034638	-014	039	12
3933	ENSMUSGCLmars1	216443	008191494	009471328	02675	0385	12
3938	ENSMUSGCLmast2	17776	032115207	008858829	0022	06075	12
3943	ENSMUSGCLmatk	17179	021854553	008936523	-0015	03625	12
3953	ENSMUSGCLmbd3	17192	005200837	-01127949	-022	047	12
3954	ENSMUSGCLmbac1	330216	-00839325	-00414366	0003	03125	12
4002	ENSMUSGCLmed1	19014	002780703	010038416	-0245	0535	12
4016	ENSMUSGCLmed4	67381	-00258291	-00197073	-0055	048	12
4029	ENSMUSGCLmepce	231803	004440865	017137675	-0145	05675	12
4042	ENSMUSGCLmetti26	52686	015805311	025906367	00925	06675	12
4046	ENSMUSGCLmetti3	68347	005776434	-01516134	00035	03125	12
4105	ENSMUSGCLmfc1	56335	017649774	020711036	-01625	052	12
4110	ENSMUSGCLmfc1	170790	004022741	-00752270	0115	05	12
4110	ENSMUSGCLmfc6	246198	019344453	007984425	00505	043	12
4137	ENSMUSGCLmospd1	70380	-00133882	-00067175	01925	03325	12
4145	ENSMUSGCLmposph6	68533	023933886	020292678	000325	04225	12
4188	ENSMUSGCLmrpl32	75398	-01426461	-00174004	03	063	12
4195	ENSMUSGCLmrpl4	66163	001845323	-00939216	01975	0585	12
4199	ENSMUSGCLmrpl43	94067	-00043986	-01303487	-0075	05825	12
4200	ENSMUSGCLmrpl44	69163	012938458	-00301270	00925	03175	12
4219	ENSMUSGCLmrps16	66242	000167317	-01266348	-006	04125	12
4221	ENSMUSGCLmrps18a	68565	00157154C	-00911397	-001	03825	12
4223	ENSMUSGCLmrps18c	68735	-00721837	-02067333	0245	0505	12
4262	ENSMUSGCLmta3	116871	02313612C	007420174	-0035	03025	12
4269	ENSMUSGCLmterf2	74238	030747901	-01352162	01525	02825	12
4281	ENSMUSGCLmtmr1	53332	013827593	000077461	0305	049	12
4302	ENSMUSGCLmtmrn	68235	016939745	-00425140	00925	03275	12
4309	ENSMUSGCLmvb12b	72543	014147136	010016418	-003	051	12
4310	ENSMUSGCLmvd	192156	013801567	-02736165	-013	04225	12
4321	ENSMUSGCLmyg1	60315	-00350687	-00478788	016	03125	12
4351	ENSMUSGCLmyt11	17933	-00206335	024189130	002625	057	12
4355	ENSMUSGCLn4bp2l2	381695	00169161C	014238683	0023	05825	12
4362	ENSMUSGCLnaa30	70646	000985797	012503201	02025	02975	12
4364	ENSMUSGCLnaa38	78304	-00808038	-02111818	0015	03475	12
4365	ENSMUSGCLnaa40	70999	-00070840	015634569	-117757e-1	03575	12
4366	ENSMUSGCLnaa50	72117	-00030219	-00165528	0005	0325	12
4370	ENSMUSGCLnaca	17938	009616067	-00965029	-00425	03275	12
4371	ENSMUSGCLnacad	192950	-01569391	-00357146	000775	04825	12
4394	ENSMUSGCLnasp	50927	012549797	009758372	000775	06525	12
4402	ENSMUSGCLnav1	215690	-01852693	011501744	-00175	052	12
4403	ENSMUSGCLnav2	78286	014105378	017392546	196262e-1	0475	12
4415	ENSMUSGCLncan	13004	-01968203	-00854950	-0035	0345	12
4421	ENSMUSGCLncf1	17969	003343904	010495994	00025	03525	12
4422	ENSMUSGCLncf2	17970	-00078021	-00658132	-00075	043	12
4426	ENSMUSGCLnckap1l	105855	013841197	008783009	-002	0345	12
4431	ENSMUSGCLncsoa1	17977	015753784	004800304	00215	06875	12
4444	ENSMUSGCLndn	17984	017527605	007133532	02525	07	12
4504	ENSMUSGCLnectin3	58998	-01640175	004653953	-00125	0325	12
4538	ENSMUSGCLnfia	18027	012085648	-00083668	0115	05875	12
4539	ENSMUSGCLnflb	18028	01575263C	017079845	00525	04275	12
4540	ENSMUSGCLnfic	18029	016928077	007700277	-02325	06	12
4548	ENSMUSGCLnfyc	18046	008483817	-00131867	-0075	03475	12
4566	ENSMUSGCLnip7	66164	004108955	-00683375	01025	0475	12
4576	ENSMUSGCLnkain4	58237	00251590C	-00102886	0003	07025	12
4586	ENSMUSGCLnmd3	97112	-00871138	-01651131	-00875	06125	12
4590	ENSMUSGCLnmnat2	226518	00606587C	-00658260	02075	065	12
4593	ENSMUSGCLnmt1	18107	012737057	006516207	00035	03175	12
4604	ENSMUSGCLnol3	78688	-00243492	-02253055	-007	03625	12
4612	ENSMUSGCLnono	53610	001340621	-01213503	004	046	12
4615	ENSMUSGCLnop16	28126	019205438	002273311	-01575	0325	12
4633	ENSMUSGCLnpc2	67963	-01406787	-01059228	0004	04775	12
4654	ENSMUSGCLnr1d2	353187	009568181	059035976	02825	06475	12
4669	ENSMUSGCLnrip3	78593	012437287	-00231506	026	0475	12
4681	ENSMUSGCLnsdhl	18194	-01376565	-00888499	015	04375	12
4690	ENSMUSGCLnsun2	28114	010488932	01707042	01475	0305	12
4723	ENSMUSGCLnudt11	58242	001041438	001678945	00085	03975	12
4724	ENSMUSGCLnudt12	67993	021750161	012948823	-01625	03925	12
4734	ENSMUSGCLnudt21	68219	004123721	008647355	01625	08175	12
4741	ENSMUSGCLnufip2	68564	-00963352	021212393	0235	045	12
4775	ENSMUSGCLnyap2	241134	-03670592	-01253095	-0085	053	12
4776	ENSMUSGCLoard1	106821	-00339048	-01967267	-02275	0485	12
4784	ENSMUSGCLoga	76055	013744332	-01499546	000775	02925	12
4812	ENSMUSGCLorai2	269717	-00420527	020458387	01425	044	12
4830	ENSMUSGCLotff1	20409	-01716378	-00756735	0103	03275	12
4835	ENSMUSGCLotud4	73945	-01663172	002088061	-01725	05125	12
4876	ENSMUSGCLpak4	70584	-01478739	-01794022	-01175	061	12
4878	ENSMUSGCLpak6	214230	018309626	010178570	02025	04025	12
4888	ENSMUSGCLpam16	66449	-00162116	-01930942	-02625	0575	12
4897	ENSMUSGCLpapola	18789	012119085	007103434	0004	035	12
4902	ENSMUSGCLpaqr9	75552	-01808918	030154604	000775	05575	12
4908	ENSMUSGCLparl	381038	-01313015	-01835444	-014	03975	12
4911	ENSMUSGCLparp1	11545	011296695	-00351629	-0165	056	12
4915	ENSMUSGCLparvb	170736	000763535	-02026075	00025	0415	12
4918	ENSMUSGCLpawr	114774	-00909457	0027155	0135	06525	12
4924	ENSMUSGCLpbxp1	229534	-00962709	-01930051	02575	042	12
4925	ENSMUSGCLpcbd1	13180	017934992	001270558	000775	0345	12
4933	ENSMUSGCLpcdh1	75599	-01963700	030900619	-01675	04725	12
4942	ENSMUSGCLpcdha12	192164	-03374991	-00953655	-00425	05275	12
4955	ENSMUSGCLpcdhga5	93713	-00413978	011934063	01775	061	12
4974	ENSMUSGCLpcmtd2	245867	-00246050	007963615	-012	039	12
4976	ENSMUSGCLpcnp	76302	-00418031	008194801	-0205	057	12
4995	ENSMUSGCLpdc4	18569	003618525	004523012	0185	02475	12
5013	ENSMUSGCLpde5a	242202	000624394	031205966	-00475	04475	12



5015	ENSMUSGCPde7a	18583	003040025	008373363	02475	0455	12
5036	ENSMUSGCPdlm4	30794	021383492	-00585812-	-0125	056	12
5037	ENSMUSGCPdlm5	56376	006886633	-00125258	022	0345	12
5049	ENSMUSGCPdzd11	72621	000483519	-02363471	018	0385	12
5063	ENSMUSGCPelp1	75273	009482106	-00448074	00875	03275	12
5104	ENSMUSGCPgl5	66171	000418437	-01086467-	-0005	03825	12
5107	ENSMUSGCPgm2l1	70974	015733743	00820517	101325	04075	12
5118	ENSMUSGCPhactr4	100169	006703007	022070650	0001	03825	12
5122	ENSMUSGCPPhb2	12034	000866453	-00662221-	-0115	0355	12
5130	ENSMUSGCPPhf3	213109	004009809	004188861	-02075	0465	12
5146	ENSMUSGCPPhlp2	244650	007579061	009633781	00775	05275	12
5148	ENSMUSGCPPhospho2	73373	006192148	-00057822	01675	0385	12
5157	ENSMUSGCPPhkb	107650	015743652	010927022	00225	03	12
5162	ENSMUSGCPPhd1	98496	-00507112	-00626700	00725	03475	12
5179	ENSMUSGCPPhk3ip1	216505	-03066107	014442425	0009	05875	12
5206	ENSMUSGCPPhia	18767	002370912	-00606020	-00825	061	12
5208	ENSMUSGCPPhig	18769	007568552	-01242987	-009	045	12
5229	ENSMUSGCPPhg2	234779	014634414	011460129	-00725	045	12
5247	ENSMUSGCPPhkhf2	71801	007326369	016582235	-0095	044	12
5259	ENSMUSGCPPhod3	26433	-01139580	026769771	10225	07425	12
5282	ENSMUSGCPPhna3	18846	019240874	030992448	01275	04075	12
5301	ENSMUSGCPPhna2	239157	011579928	-00090549	00225	05325	12
5321	ENSMUSGCPPhlb	18970	010994787	005310034	011	06775	12
5322	ENSMUSGCPPhd2	18972	009504875	-00445917	028	08275	12
5337	ENSMUSGCPPhr2j	20022	003567948	-01455037-	-0175	03975	12
5339	ENSMUSGCPPhr2m	28015	013199056	-00740724-	-0035	05125	12
5341	ENSMUSGCPPhr3b	70428	000690469	002193555	02775	04225	12
5358	ENSMUSGCPPhr3f1	18991	013511311	001285	-00375	0715	12
5361	ENSMUSGCPPha1	67895	-00155962	-02394969	0175	03175	12
5395	ENSMUSGCPPhm1k	243382	008804598	-00132425	-02125	0325	12
5410	ENSMUSGCPPhp1r14b	18938	005461114	002390841	00275	03175	12
5427	ENSMUSGCPPhp2ca	19052	003075507	-01532472	-0195	04	12
5445	ENSMUSGCPPhp4r1	70351	017704434	-00290963-	-0055	038	12
5446	ENSMUSGCPPhp4r2	232314	014460759	010772305	-00825	064	12
5447	ENSMUSGCPPhp4r3a	68734	-00241984	014219775	03425	0495	12
5463	ENSMUSGCPPhdm2	110593	009867526	006964245	0425	0585	12
5478	ENSMUSGCPPhckle2	243548	011840822	009543215	00065	034	12
5484	ENSMUSGCPPhkacb	18749	002566028	-00928662-	-001	029	12
5498	ENSMUSGCPPhkq	18761	-00110191	-01093440	-012	03775	12
5506	ENSMUSGCPPhkra	23992	013384348	-00573821	0145	0325	12
5510	ENSMUSGCPPhmt5	27374	014943071	-00261330	000175	04075	12
5511	ENSMUSGCPPhmt7	214572	019385603	001081361	-005	044	12
5544	ENSMUSGCPPhrc2a	53761	020444557	011577586	-0085	04825	12
5545	ENSMUSGCPPhrc2b	227723	005830175	013135610	0021	05225	12
5546	ENSMUSGCPPhrc2c	226562	-00703913	017030029	-009	04525	12
5551	ENSMUSGCPPhrune2	353211	-02679547	008450351	-0002	0565	12
5554	ENSMUSGCPPhap	19156	-01987125	007839270	0255	07425	12
5566	ENSMUSGCPPhma6	26443	002117005	-0091479602		05325	12
5594	ENSMUSGCPPhmd7	17463	012941771	004877289	000075	0435	12
5599	ENSMUSGCPPhme3	19192	003037633	-00664193-	-0095	0385	12
5620	ENSMUSGCPPhgds	19215	020907125	002149351	-018	063	12
5646	ENSMUSGCPPhgn13	19249	007175221	-01580362	-00625	04175	12
5654	ENSMUSGCPPhpra	19262	-01151301	00512281	00625	06275	12
5662	ENSMUSGCPPhprn	19275	-01053842	013442887	-0105	03675	12
5677	ENSMUSGCPPhum2	80913	004361410	005420461	-00725	03225	12
5681	ENSMUSGCPPhurg	75029	014383751	-00252307	01975	027	12
5682	ENSMUSGCPPhus7	78697	012656464	017392985	-0135	04075	12
5690	ENSMUSGCPPhx	218699	012236036	005206293	0355	06075	12
5705	ENSMUSGCPPhyurf	66459	-00340274	-03679752	00275	077	12
5723	ENSMUSGCPPhb11fip3	215445	010053163	008013758	0006	06875	12
5730	ENSMUSGCPPhb18	19330	-00009913	-00198098-	-00125	0495	12
5740	ENSMUSGCPPhb28	100972	007349505	-00762872	-00025	059	12
5750	ENSMUSGCPPhb36	76877	001952773	-00343287-	-001	04275	12
5794	ENSMUSGCPPhad50	19360	011381618	005208480	-01925	039	12
5797	ENSMUSGCPPhaf1	110157	007450026	000308464	01125	039	12
5814	ENSMUSGCPPhanp17	66011	-00226881	-01417784-	-0135	054	12
5816	ENSMUSGCPPhanp3	71810	002386015	-00464814-	-003	052	12
5822	ENSMUSGCPPhap1gap	110351	008955428	006229553	-0145	03725	12
5826	ENSMUSGCPPhap2b	74012	015596275	011119395	01175	04075	12
5877	ENSMUSGCPPhbm26	74213	-00718757	018037408	-00925	0485	12
5878	ENSMUSGCPPhbm27	225432	011853128	015685163	000075	02925	12
5895	ENSMUSGCPPhcn1	381305	-00058814	024611506	-01325	03525	12
5899	ENSMUSGCPPhcan3	53902	-00389860	-01789622	02025	04875	12
5903	ENSMUSGCPPhcc2	108911	002283432	-00776774	-01125	047	12
5934	ENSMUSGCPPhetsat	67442	017611168	033622346	02375	06325	12
5944	ENSMUSGCPPhfn1	76438	-01094445	-01229834	02075	04525	12
5951	ENSMUSGCPPhgma	244058	-02338083	027009531	00225	0545	12
5981	ENSMUSGCPPhgnp2	52428	010400774	-00443055	-00825	02925	12
5997	ENSMUSGCPPhng1	19763	008140822	008934734	-01725	05	12
6014	ENSMUSGCPPhmd5a	68477	009134064	002667190	02025	02975	12
6034	ENSMUSGCPPhnf14	56736	017556895	-00447856	-00275	0305	12
6045	ENSMUSGCPPhnf20	109331	009517073	000239719	01825	04625	12
6053	ENSMUSGCPPhnf34	80751	003675654	-00102559	00475	04575	12
6061	ENSMUSGCPPhnmt	67897	-00036524	-008427668	024	07	12
6062	ENSMUSGCPPhnpep	215615	019371404	-00317867-	-00725	02925	12
6073	ENSMUSGCPPhpa2	19891	003981432	-00899325	-01025	0645	12
6076	ENSMUSGCPPhpap3	71919	015924925	-00244081-	-00675	0315	12
6080	ENSMUSGCPPhgrip1l	244585	023953910	022541041	0006	04525	12
6107	ENSMUSGCPPhpl30	19946	004371619	-01214923	00375	04575	12
6108	ENSMUSGCPPhpl31	114641	005122417	-02948708	03725	06475	12
6126	ENSMUSGCPPhplp0	11837	012613563	-01338302	03075	043	12
6154	ENSMUSGCPPhps26	27370	005855322	-01670887	0165	06775	12
6157	ENSMUSGCPPhps28	54127	008007783	-01846647	-001	07175	12
6161	ENSMUSGCPPhps5	20103	007795025	-01629508	02275	0365	12
6163	ENSMUSGCPPhps6ka1	20111	003443619	002879425	-002	06825	12
6166	ENSMUSGCPPhps6ka4	56613	013336281	022184355	0005	0405	12
6167	ENSMUSGCPPhps6ka5	73086	-02326382	-00867481-	-0105	055	12
6183	ENSMUSGCPPhrbp1	81910	-01033592	009214341	03675	0565	12
6196	ENSMUSGCPPhrsr2	208606	-00001830	017631530	-009	038	12
6198	ENSMUSGCPPhrtca	66368	-00328334	-02391518	0005	041	12
6204	ENSMUSGCPPhrtm2	20167	018396680	006145295	0202	05	12
6213	ENSMUSGCPPhrufy1	216724	00804364	001701662	02475	0375	12
6214	ENSMUSGCPPhrufy2	70432	001866700	005328326	02625	0345	12
6244	ENSMUSGCPPhsae1	56459	003512124	-02245173	0006	07125	12
6260	ENSMUSGCPPhsap30l	50724	008514248	-01191148	005	03375	12
6269	ENSMUSGCPPhsat3	53890	021285380	010859702	0007	0705	12
6272	ENSMUSGCPPhsb1	20230	021373674	006880991	00375	0725	12
6273	ENSMUSGCPPhsb2	212712	014822635	006064988	00015	0595	12
6282	ENSMUSGCPPhscf4	224432	00647416	005579416	-026	053	12
6283	ENSMUSGCPPhscf8	106583	019497760	001811507	-029	05675	12
6289	ENSMUSGCPPhscap	235623	-00098998	024471416	0285	05475	12
6291	ENSMUSGCPPhscara3	219151	-01207948	004506060	00225	05925	12
6301	ENSMUSGCPPhscly	50880	004904824	-01763710	0265	03775	12
6322	ENSMUSGCPPhscube1	64706	-01664321	-00763995	-0105	0495	12
6324	ENSMUSGCPPhscyl2	213326	-00315118	-01254600	0001	031	12
6328	ENSMUSGCPPhscd3	20970	-01932623	000170930	01075	06625	12
6331	ENSMUSGCPPhsde2	208768	004304143	001233989	00045	06925	12
6355	ENSMUSGCPPhsec23b	27054	009739680	-00923976-	-00225	03525	12
6358	ENSMUSGCPPhsec24b	99683	019739436	007999001	00725	027	12
6360	ENSMUSGCPPhsec24d	69608	021515724	017818597	-0155	04025	12
6361	ENSMUSGCPPhsec31a	69162	012959280	002561215	-00075	0275	12
6378	ENSMUSGCPPhselenop	20363	024513603	024515746	-022	04525	12
6399	ENSMUSGCPPhsephs1	109079	001079062	-00809705	-01375	05325	12
6413	ENSMUSGCPPhserbp1	66870	006053192	-00184445	01275	03175	12
6422	ENSMUSGCPPhserpinb1b	282663	-00677008	-02501453-	-011	03925	12
6423	ENSMUSGCPPhserpinb6a	20719	-00025762	-02274634	001	0725	12



6426	ENSMUSGcSerpine2	20720	-01233807	-01081315	00045	03575	12
6432	ENSMUSGcSesn3	75747	012376845	-02881430	01925	0435	12
6434	ENSMUSGcSet	56086	008126319	-00290351	-00325	0425	12
6436	ENSMUSGcSetd3	52690	006662425	-00937420	00625	04075	12
6453	ENSMUSGcSfpq	71514	007655035	01949127	-003	0365	12
6472	ENSMUSGcSgsm2	97761	009828283	-00751940	-00225	04675	12
6478	ENSMUSGcSh2d3c	27387	-01469753	-02478280	02025	02975	12
6480	ENSMUSGcSh3bgrl	56726	002227862	-00408722	00575	0455	12
6493	ENSMUSGcSh3kbp1	58194	-01344404	-01708882	-00475	0385	12
6507	ENSMUSGcShd	20420	003703578	-00180118	-0085	04225	12
6518	ENSMUSGcShprh	268281	003743591	00815244	010155	06075	12
6520	ENSMUSGcShroom1	17174	-00629703	018201069	00185	06375	12
6523	ENSMUSGcShtn1	71653	-01692703	-03462691	00575	05475	12
6524	ENSMUSGcSiae	22619	-02670516	-00790440	00825	0525	12
6557	ENSMUSGcSic14a1	108052	-01977874	006188472	-00375	037	12
6559	ENSMUSGcSic15a4	100561	-01139343	029497840	0285	054	12
6614	ENSMUSGcSic25a36	192287	-00599276	011194984	0022	033	12
6658	ENSMUSGcSic38a10	72055	-01705415	011122873	00045	0715	12
6661	ENSMUSGcSic38a7	234595	-03044638	01138886	0003	06725	12
6664	ENSMUSGcSic39a12	277468	004318110	007652197	-01325	02875	12
6679	ENSMUSGcSic4a1ap	20534	022063321	013582469	01275	05525	12
6681	ENSMUSGcSic4a3	20536	003461816	011948337	-0135	03075	12
6683	ENSMUSGcSic4a7	218756	-00443562	029894381	00225	04075	12
6741	ENSMUSGcSmad5	17129	003666949	-00531856	-01925	0515	12
6748	ENSMUSGcSmarcal1	54380	016825216	011047492	-01475	04275	12
6802	ENSMUSGcSnp1	76793	002307695	-01137351	-0115	038	12
6803	ENSMUSGcSnn	20621	-00223102	-00145435	0205	0355	12
6818	ENSMUSGcSnrpe	20643	007241455	-01320559	01775	04175	12
6829	ENSMUSGcSnnx11	74479	-00102689	000818779	-0015	0275	12
6847	ENSMUSGcSnnx33	235406	-03224479	009396373	01025	05775	12
6852	ENSMUSGcSnn9	66616	005543218	-00008679	-006	056	12
6857	ENSMUSGcSod3	20657	-03448005	-00128754	01225	06525	12
6888	ENSMUSGcSpats2	72572	005049817	-00524693	00225	04725	12
6901	ENSMUSGcSphkap	77629	-00298286	011553057	02875	05175	12
6902	ENSMUSGcSpin1	20729	013768538	-001510921	-012	0355	12
6905	ENSMUSGcSpns1	73658	-01221067	019679573	00065	048	12
7006	ENSMUSGcStard3nl	76205	-01318943	012275171	00035	03775	12
7024	ENSMUSGcStk11ip	71728	018782337	010577541	-00275	05775	12
7031	ENSMUSGcStk38	106504	006286587	006909374	-009	03075	12
7039	ENSMUSGcStn1	108689	-00748659	-01249442	00525	047	12
7080	ENSMUSGcSuds3	71954	014652327	-00691043	02425	0405	12
7111	ENSMUSGcSwi5	72931	00269717C	-01874878	025	0435	12
7138	ENSMUSGcSys1	66460	-01859035	-01119484	00625	0375	12
7143	ENSMUSGcSyt13	80976	-02023663	002003270	00045	044	12
7145	ENSMUSGcSyt17	110058	023484163	017327492	0201	04025	12
7151	ENSMUSGcSyt7	54525	000766387	01689317	-00375	04025	12
7167	ENSMUSGcTaf10	24075	004523014	-02477484	0225	05075	12
7168	ENSMUSGcTaf11	68776	-00069433	-01227603	-004	04175	12
7183	ENSMUSGcTaldo1	21351	-00332834	-02272751	-0015	05375	12
7197	ENSMUSGcTarbp2	21357	-01211982	017364911	01525	07075	12
7201	ENSMUSGcTars3	272396	009020132	002723304	00125	03175	12
7229	ENSMUSGcTbcl1d9	71310	010234257	004440126	-00375	03625	12
7233	ENSMUSGcTbcc	72726	-01165754	-03099988	00775	03125	12
7240	ENSMUSGcTb11x	21372	-00604573	-00600183	02225	03775	12
7241	ENSMUSGcTb11xr1	81004	-00773128	-00229754	-00075	035	12
7244	ENSMUSGcTbpl1	237336	009775131	000513214	-01775	05925	12
7250	ENSMUSGcTceal1	237052	-00740102	-01992070	012	0585	12
7253	ENSMUSGcTcerg1	56070	-00310338	004045105	-0075	03275	12
7265	ENSMUSGcTdp2	56196	003015421	012936327	00425	06675	12
7283	ENSMUSGcTepsin	78777	024573705	015842105	02175	03725	12
7295	ENSMUSGcTfdp1	21781	011979095	014793465	0035	04725	12
7296	ENSMUSGcTfe3	209446	-00451876	000608881	-01375	03175	12
7309	ENSMUSGcThada	240174	021268102	012914487	0395	052	12
7330	ENSMUSGcThumpd1	233802	012264473	-00615213	-004	06225	12
7336	ENSMUSGcTiam1	21844	008844937	015635993	-0115	03	12
7353	ENSMUSGcTimmdc1	76916	-00274110	001410553	-00925	03225	12
7364	ENSMUSGcTicd4	99887	-01731459	-00161956	01	03075	12
7373	ENSMUSGcTm7sf2	73166	-01847815	-01499043	016	051	12
7419	ENSMUSGcTmem147	69804	-01629421	-00431731	01975	077	12
7423	ENSMUSGcTmem160	69094	-01306223	-02411049	0175	041	12
7432	ENSMUSGcTmem177	66343	014273666	004127519	000875	038	12
7436	ENSMUSGcTmem185a	236848	-03193765	011620510	-0035	049	12
7450	ENSMUSGcTmem229a	319832	003627098	-01786777	-00725	04225	12
7460	ENSMUSGcTmem258	69038	-01645118	-01534914	00075	06925	12
7473	ENSMUSGcTmem50b	77975	-02553108	005039029	02575	0635	12
7482	ENSMUSGcTmem69	230657	-00220414	-00124628	03075	0385	12
7510	ENSMUSGcTnfajp83	244882	024421442	007815036	-0025	032	12
7537	ENSMUSGcTomm40l	641376	010746731	-02223168	00095	0295	12
7539	ENSMUSGcTomm7	66169	005793345	-01919845	01775	02975	12
7556	ENSMUSGcTpd5212	66314	002891635	-01150428	016	067	12
7569	ENSMUSGcTppp3	67971	-00025669	-00631074	00175	07475	12
7578	ENSMUSGcTrabd	67976	-00168579	001037709	-018	05225	12
7579	ENSMUSGcTraf2	22030	002742668	003461659	00425	0425	12
7616	ENSMUSGcTrim33	94093	004297735	004820593	-00775	0425	12
7618	ENSMUSGcTrim36	28105	-03842381	004925304	-00025	05825	12
7620	ENSMUSGcTrim44	80985	010004195	003601355	-006	027	12
7624	ENSMUSGcTrim65	338364	00410937C	033442803	0275	061	12
7638	ENSMUSGcTrmt112	67674	013617818	-00774443	018	02625	12
7648	ENSMUSGcTrp53rb	76367	007155857	-01430056	00625	031	12
7651	ENSMUSGcTrpc4ap	56407	01338413C	-00301058	01125	02725	12
7663	ENSMUSGcTsc22d4	78829	014098205	-00805956	026	03575	12
7684	ENSMUSGcTspoop1	207777	021797305	-00069686	02775	065	12
7689	ENSMUSGcTssc4	56844	-02421228	-00512638	-023	05225	12
7693	ENSMUSGcTtbk2	140810	002619562	-00137960	-00375	044	12
7701	ENSMUSGcTtc33	67515	009779996	002582143	01775	07825	12
7708	ENSMUSGcTtc9	69480	007061078	-00731578	0007	0335	12
7709	ENSMUSGcTtc9b	73032	00699860C	-01162071	-01825	051	12
7722	ENSMUSGcTtyh3	78339	-00615869	021849093	-01275	049	12
7749	ENSMUSGcTut7	214290	008170725	007936270	000725	0475	12
7753	ENSMUSGcUxling	353170	024220928	026470593	00035	061	12
7774	ENSMUSGcUzaf2	22185	006003564	-01398590	-0005	047	12
7777	ENSMUSGcUap1	107652	008289095	-00635679	00625	045	12
7784	ENSMUSGcUbac1	98766	007600545	-00526471	-003	037	12
7788	ENSMUSGcUba2	68926	016685093	002147067	-0105	0625	12
7789	ENSMUSGcUba2p1	74383	001558463	-00178299	-01625	0385	12
7794	ENSMUSGcUbe2d3	66105	-00862025	010775958	02625	0385	12
7795	ENSMUSGcUbe2e2	218793	005019753	-01217715	02175	06	12
7806	ENSMUSGcUbe2m	22192	000459775	-02438349	02275	06225	12
7822	ENSMUSGcUbfdf1	28018	019617782	008857582	-00025	0285	12
7829	ENSMUSGcUbn1	170644	010789415	016478417	-0145	0505	12
7839	ENSMUSGcUbr7	66622	007751741	007711647	00925	03675	12
7845	ENSMUSGcUbxn4	67812	000558114	011786603	0204	0385	12
7865	ENSMUSGcUggt2	66435	001297676	009003909	0033	06125	12
7886	ENSMUSGcUlnk	217331	-00337637	003394047	0003	026	12
7892	ENSMUSGcUpr1	331487	009352755	-01219376	02075	04375	12
7923	ENSMUSGcUsp20	74270	015617691	001157166	001	0385	12
7924	ENSMUSGcUsp22	216825	-00915897	-00760978	02075	03975	12
7952	ENSMUSGcUtp18	217109	006390603	008219803	-017	04925	12
7962	ENSMUSGcVamp2	22318	010335881	-00730241	01075	054	12
7971	ENSMUSGcVash1	238328	-00467840	-03337985	-0175	047	12
7975	ENSMUSGcVat1l	270097	-00308746	-01283895	01125	0305	12
7991	ENSMUSGcVhl	22346	005736355	-02885686	03475	06275	12
7996	ENSMUSGcVirma	66185	008310305	008358833	0225	04525	12
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8047	ENSMUSGcVtn	22370	-00372330	024263383	0005	0565	12



8050	ENSMUSGcVwa5b2	328643	019549936 -0201749102575	0655	12
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8064	ENSMUSGcWashc3	67282	-01186807 -02406545i-00425	0325	12
8080	ENSMUSGcWdr18	216156	010594608 -01114673i-004	03125	12
8096	ENSMUSGcWdr46	57315	016178733 -00722095 -02425	054	12
8111	ENSMUSGcWdsub1	72137	00875407 -00028250i-012	02825	12
8127	ENSMUSGcWwc1	211652	005322308 -01391891i-00825	039	12
8130	ENSMUSGcWwp1	107568	00250629C -01245540i01875	0485	12
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8152	ENSMUSGcXrcc6	14375	011197199 -00484244 -011	05425	12
8154	ENSMUSGcXrm2	24128	-01154378 001517914 -001	033	12
8162	ENSMUSGcYbx1	22608	-00452359 -01789032 00425	0475	12
8164	ENSMUSGcYdjC	69101	006337477 000468431i-00475	0375	12
8168	ENSMUSGcYipr1	230584	-02867082 001535425i01025	04675	12
8173	ENSMUSGcYjefn3	234365	00358578700413891 02175	0435	12
8175	ENSMUSGcYk6	56418	004010647 -01667116i0235	0325	12
8185	ENSMUSGcYthdf2	213541	-00839852 016991600 -00275	03175	12
8186	ENSMUSGcYthdf3	229096	-00669131 014185295i00725	06075	12
8187	ENSMUSGcYwhab	54401	004843743 -00596642 -0095	041	12
8191	ENSMUSGcYwhaq	22630	002109595 -01207837 01525	0305	12
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8238	ENSMUSGcZfand6	65098	003922092003406722i-01525	04925	12
8240	ENSMUSGcZfp180	210135	02237682C01423021100075	04275	12
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8287	ENSMUSGcZscan18	232875	-00445079 -01720978i016	043	12
8288	ENSMUSGcZscan26	432731	-00458475 -011885398 -01325	034	12
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122	ENSMUSGcAcox1	11430	012957669 -00565198i064	053	13
182	ENSMUSGcAdcyap1	11516	-05619390 -01376281i05425	08925	13
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438	ENSMUSGcApbb1ip	54519	-00775499 -00242511i028	091	13
464	ENSMUSGcAptx	66408	00109025 -01824739i04075	0965	13
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622	ENSMUSGcAtg14	1.01E+08	01084574C00106122005275	06875	13
685	ENSMUSGcAtp6v1h	108664	-01115597 -00942763 05625	11425	13
753	ENSMUSGcBC004004	80748	-02916594 -00030214i07175	0785	13
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937	ENSMUSGcCaly	68566	-03736298 -00083901i0205	0895	13
958	ENSMUSGcCant1	76025	-01569498 022830997046	0695	13
988	ENSMUSGcCasp1	12362	-02465343 -02921064 09225	12225	13
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1068	ENSMUSGcCcn3	18133	-03112766 01965138i072	12825	13
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1758	ENSMUSGcDcx	13193	-01736497 0050331540395	1195	13
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2189	ENSMUSGcEl0a	27224	01221812300271035305475	108	13
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2347	ENSMUSGcExt2	14043	-03099389 028112298079	0835	13
2348	ENSMUSGcExt1i	56219	00846021502657532107125	102	13
2357	ENSMUSGcFaap100	71885	024533145 0034190461665	124	13
2360	ENSMUSGcFabp7	12140	020902401 -04858190i04425	0935	13
2361	ENSMUSGcFadd	14082	02769550601041528003025	092	13
2363	ENSMUSGcFads2	56473	012072805 -00680540i08275	05025	13
2383	ENSMUSGcFam124a	629059	006154788 -00767259i1025	08375	13
2470	ENSMUSGcFcf1	73736	-01779152 -00515879 0415	084	13
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2548	ENSMUSGcFmo5	14263	-00487858 -01638724i09275	078	13
2565	ENSMUSGcFoxj3	230700	-00319117 -00647029i0945	16125	13
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2975	ENSMUSGcGtf2e2	68153	0055536720122126760485	0555	13
3085	ENSMUSGcHexim1	192231	004112946 -00025655i04425	0605	13
3106	ENSMUSGcHltf	20585	007713407 01379919306325	08625	13
3121	ENSMUSGcHmgn3	94353	00416060800427071207525	15825	13
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3310	ENSMUSGcInsc	233752	-04608086 -02057276i02475	108	13
3380	ENSMUSGcItgb3	16416	-01460007 004440208049	06675	13
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3402	ENSMUSGcIwms1abp	117198	-00665371 00814731205275	103	13
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3533	ENSMUSGcKlf21a	16564	01013509500847628067	0785	13
3586	ENSMUSGcKrt12	268482	-01673110 -02681353i05075	069	13
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3679	ENSMUSGcLin9	72568	00946105503560496804175	08775	13
3745	ENSMUSGcLrrc24	378937	-03674357 0007906830355	087	13
3803	ENSMUSGcLy6c1	17067	03069402408814540608725	08725	13
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3863	ENSMUSGcManbal	69161	-02292893 -01623524i-10675	05925	13
3928	ENSMUSGcMarcks1i	17357	015470787 -00671324 0315	10725	13
3944	ENSMUSGcMatn2	17181	-00235796 048560405i06775	04675	13
3945	ENSMUSGcMatn4	17183	-05499217 02263347308325	069	13
3961	ENSMUSGcMbtps2	270669	-04102506 01075448 07125	0875	13
3977	ENSMUSGcMcip2	68241	003019605 -0115699i07625	05275	13
3989	ENSMUSGcMdk	17242	-02274474 -01150239 07	08925	13
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4005	ENSMUSGcMed14	26896	0047154040027427470585	0985	13



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4034	ENSMUSGCMetap1d	66559	-00658840	01683127	402725	10775	13
4059	ENSMUSGCMfsd2a	76574	023214188	07788620	40109	1145	13
4063	ENSMUSGCMfsd9	211798	-03060977	01919292	005125	09225	13
4064	ENSMUSGCMgat1	17308	-00482400	00902602	6091	19975	13
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4120	ENSMUSGCMnat1	17420	01569332	00782056	02875	13375	13
4152	ENSMUSGCMped1	223726	023614841	00387863	903975	081	13
4196	ENSMUSGCMrpl40	18100	-00937980	-01431351	0745	07175	13
4257	ENSMUSGCMt1	17748	012190202	-02107704	03425	099	13
4327	ENSMUSGCMyl12a	67268	001665191	023054261	1075	0425	13
4401	ENSMUSGCMatd1	24083	017142058	010211389	0415	07125	13
4411	ENSMUSGCMnbr1	17966	-00296085	-00663729	04525	07125	13
4549	ENSMUSGCMngb	64242	023958763	-01915189	20125	121	13
4605	ENSMUSGCMno4	319211	003305931	006291335	10225	17825	13
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4936	ENSMUSGCPcdh15	11994	-01980288	01270547	6094	09275	13
5150	ENSMUSGCPhrf1	101471	018451466	01425171	704975	159	13
5167	ENSMUSGCPigo	56703	003537707	03448180	0806475	112	13
5296	ENSMUSGCPmyk	68603	005402033	-02299579	90605	06125	13
5317	ENSMUSGCPofut2	80294	-03003929	01160586	0023	08775	13
5350	ENSMUSGCPomp	66537	-00118556	-02668206	10025	0855	13
5373	ENSMUSGCPpfbp2	19024	-01658650	-01599167	04975	0715	13
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5430	ENSMUSGCPpp2r1b	73699	004905626	-00831901	1005	07475	13
5635	ENSMUSGCPtn	19242	-03829695	-01022133	-1055	03525	13
5688	ENSMUSGCPwvp3a	68114	-00605771	007607201	0305	07625	13
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5845	ENSMUSGCRasgef1c	74563	006359206	-01349446	071	081	13
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5989	ENSMUSGCRilpl1	75695	018632582	004736073	11425	091	13
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6016	ENSMUSGCRnaseh2a	69724	-00502721	-00097866	0066	0575	13
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6056	ENSMUSGCRnf5	54197	-00117846	-02291502	0038	12925	13
6115	ENSMUSGCRpl37	67281	013211105	-01484389	04725	07075	13
6127	ENSMUSGCRplp1	56040	008958303	-01915368	1015	1005	13
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6221	ENSMUSGCRusf1	233913	-02864297	012273399	10325	05975	13
6253	ENSMUSGCSamd9l	209086	-01040488	03459498	0655	15075	13
6274	ENSMUSGCSaysd1	67509	-02697167	007751339	0815	141	13
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6363	ENSMUSGSCec61a2	57743	-03208975	00697235	6085	05775	13
6429	ENSMUSGSCerping1	12258	001518395	014252819	206425	1245	13
6470	ENSMUSGSCesh	27029	-02617406	018930580	12375	037	13
6572	ENSMUSGSClc19a2	116914	-03829455	03400244	7062	06075	13
6627	ENSMUSGSClc27a3	26568	-00266670	01971277	6046	063	13
6649	ENSMUSGSClc35d3	76157	-15366505	00574953	204725	1725	13
6650	ENSMUSGSClc35f1	215085	-05302959	01934672	21785	139	13
6654	ENSMUSGSClc36a1	215335	-00467412	03504524	207425	0605	13
6696	ENSMUSGSClc6a20a	102680	-01934214	00227571	203125	087	13
6756	ENSMUSGCSmc2	14211	-00535316	01760690	30795	0665	13
6767	ENSMUSGCSmg9	71997	008750553	-01832322	0255	1365	13
6824	ENSMUSGCSnu13	20826	001951083	-02137859	0625	14375	13
6881	ENSMUSGCSparc	20692	007123855	003652739	05475	05375	13
6908	ENSMUSGCSpock2	94214	-01801408	02890248	206075	06	13
6953	ENSMUSGCSrprb	20818	-03332888	01432699	807975	04125	13
6980	ENSMUSGCSsna1	68475	-00515634	-00477062	116	13425	13
6987	ENSMUSGCSstr1	20605	-02931871	04650209	11625	132	13
6995	ENSMUSGCSst8sia5	225742	-01117128	02115227	904825	06175	13
7007	ENSMUSGCSstard5	170460	014566371	-00368450	04625	07375	13
7086	ENSMUSGCSult1a1	20887	05521782	035739501	12375	163	13
7136	ENSMUSGCSyp	20977	-03412984	00642793	7094	0535	13
7140	ENSMUSGCSyt10	54526	-01893790	0115641700	0865	042	13
7165	ENSMUSGCTada1	27878	-00299794	00376881	109525	09425	13
7172	ENSMUSGCTafsl	102162	-01966243	00901741	2037	10225	13
7177	ENSMUSGCTafa1	320265	-04163156	-00723898	06	05525	13
7257	ENSMUSGCTcirg1	27060	-00883500	03426426	903775	076	13
7297	ENSMUSGCTfeb	21425	-00350116	02621835	403975	06775	13
7374	ENSMUSGCTm9sf1	74140	-01575892	02926177	808625	056	13
7426	ENSMUSGCTmem164	209497	019824536	01532365	0056	15325	13
7451	ENSMUSGCTmem230	70612	-02420305	01732216	7042	08675	13
7452	ENSMUSGCTmem231	234740	-02719733	02296984	208075	06	13
7463	ENSMUSGCTmem263	103266	001109933	-00614804	0605	06525	13
7506	ENSMUSGCTnc	21523	-03307045	00279067	90615	05475	13
7545	ENSMUSGCTor1aip2	240832	-00627724	00689820	40465	06425	13
7617	ENSMUSGCTrim35	66854	007200484	-00817198	08675	0455	13
7642	ENSMUSGCTrmt61a	328162	006467481	-01290652	2034	10475	13
7645	ENSMUSGCTro	56191	007103756	013997981	12775	05	13
7652	ENSMUSGCTrpc6	22068	-04133117	-01838710	05375	06175	13
7671	ENSMUSGCTspan13	66109	-05005769	01476284	072725	079	13
7710	ENSMUSGCTtcs9c	70387	-00290121	-00149709	05725	06975	13
7768	ENSMUSGCTyk2	54721	024830454	024752125	04525	10875	13
7862	ENSMUSGCTugcg	22234	-05531319	017872718	10325	03775	13
7913	ENSMUSGCTusf1	22278	011012431	-00261069	0085	11125	13
8038	ENSMUSGCTvrk2	69922	-01530822	00054694	806	055	13
8043	ENSMUSGCTvstm2l	277432	-04625298	-00036297	0475	065	13
8243	ENSMUSGCTzp324	243834	024502805	015672403	1275	19775	13
11	ENSMUSG311008211	73212	005317843	-00306363	-06125	-0345	14
150	ENSMUSGCActr6	67019	012770170	014536376	-05425	-0505	14
174	ENSMUSGCAck5	268822	005780327	009669620	-063	-009	14
196	ENSMUSGCAdgrl1	330814	000428528	027988428	-13625	-046	14
201	ENSMUSGCAdl1	104923	003729346	-01799234	-054	-04325	14
206	ENSMUSGCAadora1	11539	-00123697	009393131	-083	-0465	14
296	ENSMUSGCAldh16a1	69748	-00168145	-00176258	-10175	-07425	14
329	ENSMUSGCAlpl	11647	-03275773	036416254	-048	-0495	14
384	ENSMUSGCAnrkd63	383787	-02269625	-00413988	-04925	-03	14
389	ENSMUSGCAnln	68743	-00772143	01259684	-05025	-04175	14
400	ENSMUSGCAnxa1	16952	-00500307	-00425639	-099	0115	14
452	ENSMUSGCApoc1	11812	03686200C	042715903	-08375	-0125	14
492	ENSMUSGCArhgap10	78514	007335084	-01243140	-0665	-0315	14
508	ENSMUSGCArhgap42	71544	006843861	011651229	-08325	-0135	14
589	ENSMUSGCAsap13	13196	022439323	002714181	-0715	-053	14
587	ENSMUSGCAsb13	142688	003338287	-00486269	-057	-0585	14
604	ENSMUSGCAspbd1	233879	-02919782	-00734022	-045	-0555	14
628	ENSMUSGCAtg4c	242557	020367617	017728508	-0985	015	14
642	ENSMUSGCAtp13e3	224088	-02041814	030258433	-0505	-0565	14
721	ENSMUSGCB4galnt4	330671	-00317115	025607725	-176	-07975	14
745	ENSMUSGCBaz2a	116848	012801936	008960256	-1195	-0095	14
781	ENSMUSGCBdnf	12064	-05612997	009324937	-1115	-0615	14
811	ENSMUSGCBmt2	101148	002310472	022879233	-055	-0265	14
838	ENSMUSGCBrd2	14312	013910627	012621312	-11325	-023	14
855	ENSMUSGCBrdw1	93871	-01481364	-00497006	-08425	-03275	14
915	ENSMUSGCBacng4	54377	-03286397	002003171	-049	-022	14
1010	ENSMUSGCBbr2	12409	026084125	028711192	-0675	-04175	14
1077	ENSMUSGCBcsap	73420	007467505	015761897	-0995	-02925	14
1121	ENSMUSGCBcdc42ep1	104445	-03121149	001958293	-045	-063	14
1221	ENSMUSGCBchcd3	66075	003168579	-01755338	-062	-00775	14
1247	ENSMUSGCBchmp2b	68942	-00826846	-00261545	-061	-00825	14
1290	ENSMUSGCBclasp	53609	007900211	011109589	-07625	-00675	14
1311	ENSMUSGCBcllc6	209195	-01664972	004256680	-08025	-0545	14
1312	ENSMUSGCBclint1	216705	002620847	002781585	-07525	-091	14
1394	ENSMUSGCBcntnap5c	620292	000840708	005550242	-04325	-07075	14
1412	ENSMUSGCBcoil	12812	011829986	011886732	-052	-03875	14



1462	ENSMUSGC	Coq6	217707	-00267517	-00638001	-07475	-0895	14
1541	ENSMUSGC	Crhr1	12921	-00062032	001612430	-0705	-04225	14
1557	ENSMUSGC	Crtc2	74343	-00465573	-00180120	-08125	-01225	14
1578	ENSMUSGC	Csnk1a1	93687	003214795	005688058	-09125	-04275	14
1591	ENSMUSGC	Csrp2	13008	-00082618	026676513	-05825	-01175	14
1613	ENSMUSGC	Ctnna3	216033	-00716287	-03421252	-09625	-08225	14
1650	ENSMUSGC	Cwc22	80744	010864748	008399765	-07425	-03975	14
1651	ENSMUSGC	Cwc25	67480	003240377	001059746	-061	-02425	14
1687	ENSMUSGC	Cystm1	66060	003546444	-02252668	-1095	-03225	14
1699	ENSMUSGC	D8Ertd738	101966	007178371	-02903770	-06525	-076	14
1724	ENSMUSGC	Dbdd2	52840	002057897	001774741	-0885	-07025	14
1731	ENSMUSGC	Dcaf13	223499	-00680681	-00332696	-05475	-0175	14
1774	ENSMUSGC	Ddx10	77591	021827103	004410130	-12975	-003	14
1803	ENSMUSGC	Def6	23853	-01630819	007165158	-10475	01225	14
1804	ENSMUSGC	Def8	23854	0111107582	-01228427	-1115	00825	14
1814	ENSMUSGC	Dennd4c	329877	009297846	-00250554	-099	-00925	14
1822	ENSMUSGC	Dera	232449	003112835	-01506079	-103	-00625	14
1829	ENSMUSGC	Dger2	13356	-02164547	017520225	-059	-02275	14
1919	ENSMUSGC	Dnajb2	56812	004017765	-01366647	-05925	-02575	14
1940	ENSMUSGC	Dnajc5	13002	003711611	-00571093	-05375	-01075	14
1953	ENSMUSGC	Dnmbp	71972	-00246341	-00146955	-06325	-02125	14
1968	ENSMUSGC	Dock5	68813	-01538747	012675474	-04875	-059	14
1980	ENSMUSGC	Dpagt1	13478	-01884791	029903769	-057	-0235	14
2035	ENSMUSGC	Dusp9	75590	-01258147	-04392318	-12775	-0285	14
2231	ENSMUSGC	Eno3	13808	022254736	-00175004	-061	-009	14
2321	ENSMUSGC	Eni2a	14017	-03859523	-00763076	-09775	-091	14
2353	ENSMUSGC	F13a1	74145	045248368	027212459	-06275	-01	14
2369	ENSMUSGC	Fahd1	68636	-01083145	-02715953	-0565	-034	14
2464	ENSMUSGC	Fbxo9	71538	007447779	-00977306	-053	-02325	14
2469	ENSMUSGC	Fcer1g	14127	-01512583	-00305067	-11425	0085	14
2480	ENSMUSGC	Fdx1	14148	00368232c	-00098839	-08925	-0635	14
2540	ENSMUSGC	Flt1	14254	028235626	07667773	-0865	0005	14
2541	ENSMUSGC	Flywch1	224613	011704405	-00196935	-08075	-003	14
2568	ENSMUSGC	Foxo1	56458	002068922	-01346055	-078	00275	14
2628	ENSMUSGC	Gabbr1	54393	-01715756	-00099925	-08975	-00625	14
2633	ENSMUSGC	Gabra3	14396	-01396363	005635347	-04575	-04425	14
2634	ENSMUSGC	Gabra4	14397	-06118525	015044303	-057	-0675	14
2759	ENSMUSGC	Glb1l	74577	-00068564	000093425	-05525	-02675	14
2814	ENSMUSGC	Gng11	66066	-04943354	-00734042	-1175	-03225	14
2859	ENSMUSGC	Gpatch8	237943	01255509c	004618771	-067	-0145	14
2882	ENSMUSGC	Gpr22	73010	-03051428	051623511	-06925	-01075	14
3009	ENSMUSGC	H2-D1	14964	-02881521	006925070	-0575	-0125	14
3011	ENSMUSGC	H3f3a	15078	000683753	-01368730	-154	-06925	14
3025	ENSMUSGC	Hapln2	73940	-05209521	026966057	-0765	-074	14
3036	ENSMUSGC	Hdc1s1	15163	006648406	-01574655	-08075	-049	14
3050	ENSMUSGC	Hmga9	79221	-00558361	-02159857	-08275	-0855	14
3110	ENSMUSGC	Hmgp1a	15361	002987545	-00714540	-0985	-09775	14
3161	ENSMUSGC	Hhrh1	15465	-03602773	014976740	-06375	-021	14
3186	ENSMUSGC	Hspa1a	193740	-01062692	032553026	-04825	-0265	14
3233	ENSMUSGC	Hf47	15953	-05724287	006907017	-12325	-0435	14
3272	ENSMUSGC	Il17ra	16172	-02368302	-00192606	-0545	-044	14
3298	ENSMUSGC	Inip	66209	002578882	-00626506	-077	-00375	14
3344	ENSMUSGC	Irak1	16179	011111206	-00488733	-05175	-06725	14
3346	ENSMUSGC	Ir12bp1	272359	005948609	-00427414	-10675	-06425	14
3358	ENSMUSGC	Isg20l2	229504	-01238273	010784467	-09275	-026	14
3394	ENSMUSGC	Itpkc	233011	-01930046	-01094853	-11225	-01375	14
3411	ENSMUSGC	Jam3	83964	-03494336	028619710	-053	-03625	14
3413	ENSMUSGC	Jmj06	107817	-00449967	010594547	-084	-013	14
3430	ENSMUSGC	Kank4	242553	-03818009	008577469	-09175	0075	14
3462	ENSMUSGC	Kcnf1	382571	-02236170	024411883	-0455	-035	14
3474	ENSMUSGC	Kcnj12	16515	-00435745	017273769	-0705	-02825	14
3483	ENSMUSGC	Kcnk4	16528	014063143	021346225	-0745	-0545	14
3546	ENSMUSGC	Kirrel2	243911	000624991	035641262	-051	-034	14
3652	ENSMUSGC	Lgals1	16852	-01554041	-03121047	-0555	-02875	14
3655	ENSMUSGC	Lgals9	16859	-02315530	-02309660	-14075	-06125	14
3662	ENSMUSGC	Lhfp12	218454	-03734652	-01083133	-13475	-05025	14
3672	ENSMUSGC	Limd2	67803	003540431	-00841321	-051	-048	14
3742	ENSMUSGC	Lrrc10b	278795	-05846184	017833520	-066	-034	14
3836	ENSMUSGC	Mad1l1	17120	-01755447	-02145776	-0745	-0285	14
3837	ENSMUSGC	Mad2l1	56150	012363384	017304577	-0555	-02425	14
3838	ENSMUSGC	Mad2l1bp	66591	019268882	009709619	-0755	-028	14
3910	ENSMUSGC	Mapk7	23939	000218251	-00723617	-09475	-036	14
3931	ENSMUSGC	Mark3	17169	020228282	006010324	-0885	-056	14
3935	ENSMUSGC	Mas1	17171	-01319696	010192802	-06475	-05975	14
3970	ENSMUSGC	Mchr1	207911	-04192813	008718226	-14825	-0695	14
3971	ENSMUSGC	Md1	17210	-00149236	002399642	-06175	-03325	14
3996	ENSMUSGC	Me3	109264	-00444555	-00871234	-0615	-06225	14
4003	ENSMUSGC	Med12	59024	018242975	018554294	-1145	0115	14
4048	ENSMUSGC	Mex3c	240396	000286938	003802064	-1355	-01725	14
4049	ENSMUSGC	Mfap1b	1E+08	014757236	-00065835	-08325	-0185	14
4124	ENSMUSGC	Mobp	17433	018173465	-00784374	-09825	-04925	14
4143	ENSMUSGC	Mpdu1	24070	-02310967	-00031054	-0595	-0335	14
4190	ENSMUSGC	Mrp13a	94065	009490963	-01155049	-089	-05625	14
4263	ENSMUSGC	Mtap	66902	-01531852	-01554611	-054	-012	14
4277	ENSMUSGC	Mthfs1	1E+08	-00326678	-02278965	-0745	-00875	14
4329	ENSMUSGC	My14	17896	-01341396	-04419542	-04725	-062	14
4349	ENSMUSGC	Myop	232934	008637922	-00771820	-119	-05625	14
4369	ENSMUSGC	Nabp2	69917	-00372918	-01317223	-06975	-03375	14
4386	ENSMUSGC	Nap115	58243	004716508	-01346288	-054	-06575	14
4464	ENSMUSGC	Ndufab1	70316	000619551	-01454225	-0655	-0585	14
4488	ENSMUSGC	Ndufs4	17993	-00584964	-02194481	-05325	-0515	14
4555	ENSMUSGC	Nhp2	52530	-00904182	-02530680	-066	-02425	14
4597	ENSMUSGC	Nob1	67619	-00399711	-00435382	-05275	-0275	14
4607	ENSMUSGC	Nol7	70078	006415147	-00731252	-07325	-0145	14
4628	ENSMUSGC	Notch2	18129	-03075139	-00197055	-07275	-0415	14
4656	ENSMUSGC	Nr2c2ap	75692	001998233	-01391109	-06675	-0225	14
4730	ENSMUSGC	Nudt17	78373	009777595	-01377938	-07075	-00675	14
4742	ENSMUSGC	Numa1	101706	007095186	-00056604	-0545	-022	14
4809	ENSMUSGC	Oprm1	18390	-04665634	024572637	-11675	-00325	14
4826	ENSMUSGC	Osbpl9	100273	00608621c	014235000	-063	-0815	14
4871	ENSMUSGC	Paip2b	232164	-00115345	-01867186	-102	-01675	14
5007	ENSMUSGC	Pde2a	207728	006041335	-00442836	-122	-029	14
5061	ENSMUSGC	Pell1	67245	007498187	013716587	-0665	-06375	14
5105	ENSMUSGC	Pgm1	72157	010648727	-00264843	-10075	-00775	14
5291	ENSMUSGC	Pml	18854	00409894c	-00080916	-06975	-0345	14
5298	ENSMUSGC	Pnir	66625	-00261378	042349601	-11325	-08575	14
5304	ENSMUSGC	Pnn	18949	004501033	020260274	-063	-03075	14
5342	ENSMUSGC	Pnrl3c	74414	010196054	008654598	-052	-04025	14
5346	ENSMUSGC	Pnrlmt	216151	011089299	010558756	-0585	-01	14
5367	ENSMUSGC	Ppdpf	66496	009109961	-01601904	-0775	-01975	14
5397	ENSMUSGC	Ppm1m	67905	010690515	-00781924	-13925	-0165	14
5409	ENSMUSGC	Ppp1r14a	68458	-03392097	-02516001	-06175	-04075	14
5502	ENSMUSGC	Prkdc	19090	-00865980	002254550	-0945	-038	14
5505	ENSMUSGC	Prkn	50873	013551152	-00772624	-08	-0685	14
5576	ENSMUSGC	Psmb8	16913	-02309449	-01704916	-07375	-042	14
5608	ENSMUSGC	Psrrc1	56742	017807946	-01874795	-17	-0885	14
5776	ENSMUSGC	Rabep2	70314	-00701509	014565544	-06475	-01	14
5856	ENSMUSGC	Rbbp5	213464	012064623	-00067684	-06525	-03525	14
5866	ENSMUSGC	Rbl2	19651	008100268	-01136468	-099	-031	14
5920	ENSMUSGC	Rel	19696	-01961961	-01091888	-065	-01475	14
5936	ENSMUSGC	Rexo4	227656	011004357	005399846	-05775	-02625	14
5941	ENSMUSGC	Rfesd	218341	000949786	-00270940	-076	00225	14
5947	ENSMUSGC	Rfxap	170767	00673806	-00321613	-06425	-0375	14
5948	ENSMUSGC	Rgcc	66214	000868815	-02372056	-09975	-0315	14
5953	ENSMUSGC	Rgp1	242406	010016852	-00229701	-0765	-0325	14
5966	ENSMUSGC	Rgs9	19739	-07999287	-03600026	-09675	-049	14



5976	ENSMUSGCRhog	56212	-01884727	-01503894	-06825	-023	14
6023	ENSMUSGCRnf10	50849	015877226	004316526	-073	-025	14
6037	ENSMUSGCRnf149	67702	-01442486	007019183	-0635	-01225	14
6133	ENSMUSGCRpp30	54364	004475243	006322683	-06425	-0225	14
6180	ENSMUSGCRragd	52187	-00462080	-01377362	-06675	-0475	14
6215	ENSMUSGCRufy3	52822	008387974	-00927840	-07425	-01875	14
6234	ENSMUSGCS100a4	20198	-03791838	-02554857	-071	-03525	14
6241	ENSMUSGCSaal1	78935	001205237	018716791	-05475	-04175	14
6258	ENSMUSGCSap18	20220	005006175	-02233465	-06675	-05025	14
6281	ENSMUSGCScaf11	72193	013873018	008721112	-0785	-0785	14
6326	ENSMUSGCSdad1	231452	-00120568	-01006037	-11975	-0185	14
6406	ENSMUSGCSepin4	18952	-01200977	-00942032	-0445	-06025	14
6435	ENSMUSGCSetd2	235626	047567097	093507410	-07125	-04925	14
6444	ENSMUSGCSf3a2	20222	-00288595	001703742	-04775	-0605	14
6450	ENSMUSGCSf3b5	66125	009015936	-00891013	-093	-07975	14
6457	ENSMUSGCSf2a2	108735	008418681	005378933	-09475	-043	14
6459	ENSMUSGCSfm2	94279	-01258457	037367589	-10175	-03275	14
6466	ENSMUSGCSgip1	73094	-00929199	002162267	-05525	-0405	14
6545	ENSMUSGCSlain1	105439	-00666673	-01241489	-07125	-01475	14
6555	ENSMUSGCSlc13a4	243755	01177615	022473705	-1455	-0615	14
6571	ENSMUSGCSlc19a1	20509	-02138455	035051834	-068	-001	14
6584	ENSMUSGCSlc22a5	20520	-01031447	006866078	-054	-07875	14
6598	ENSMUSGCSlc25a18	71803	015012466	-02218754	-059	-02675	14
6599	ENSMUSGCSlc25a19	67283	007608588	-00139441	-05975	-0275	14
6618	ENSMUSGCSlc25a44	229517	-01559047	013442541	-052	-01175	14
6639	ENSMUSGCSlc30a7	66500	-03024529	020568602	-10875	-0095	14
6665	ENSMUSGCSlc39a14	213053	-03549271	018459409	-08075	00075	14
6682	ENSMUSGCSlc4a4	54403	-00822913	-00870060	-05425	-04175	14
6736	ENSMUSGCSltm	66660	01311996	001503185	-064	-076	14
6768	ENSMUSGCSmim12	80284	-02308200	-01574677	-05525	-04225	14
6769	ENSMUSGCSmim13	108934	-00564612	-00234051	-06275	-00525	14
6839	ENSMUSGCSmx21	101113	009075606	007439188	-0545	-018	14
6858	ENSMUSGCSon	20658	003206265	028510838	-05225	-06075	14
6963	ENSMUSGCSrsf2	20382	-02235813	017038681	-04575	-05975	14
6966	ENSMUSGCSrsf5	20384	458e-05	016051948	-0485	-0585	14
6969	ENSMUSGCSrsf9	108014	005215404	004799258	-0505	-0555	14
6971	ENSMUSGCSs18	268996	013782875	013296834	-078	-0245	14
7081	ENSMUSGCSugct	192136	-00825331	-01043432	-104	0145	14
7157	ENSMUSGCSzt2	230676	018672066	014836638	-1045	0075	14
7166	ENSMUSGCSzf1	270627	007075791	-00955683	-11075	-0895	14
7178	ENSMUSGCSzf5	106014	-00797487	-00330129	-09875	01875	14
7195	ENSMUSGCSzfpb1	213233	-03021136	000320147	-0505	-02125	14
7301	ENSMUSGCSzfpb11	21804	004146032	-00753358	-061	-00925	14
7310	ENSMUSGCSzfpb12	21824	003121542	037047952	-054	-0165	14
7326	ENSMUSGCSzfpb13	230753	000086771	-00471433	-07575	-0605	14
7388	ENSMUSGCSzfpb3	66111	-02884289	004435501	-0925	-06375	14
7398	ENSMUSGCSzfpb11	216821	-00179442	-00453544	-07425	-03575	14
7457	ENSMUSGCSzfpb12	71687	-02238024	-00076412	-0745	-07	14
7469	ENSMUSGCSzfpb13	52076	000101123	00606092	-0735	-0045	14
7474	ENSMUSGCSzfpb14	214359	-02171504	-04083308	-078	-04525	14
7521	ENSMUSGCSzfpb15	231861	-00085131	006450938	-069	-02825	14
7524	ENSMUSGCSzfpb16	21961	008424480	014671795	-07775	-03675	14
7564	ENSMUSGCSzfpb17	326618	013672941	023861309	-06925	-02525	14
7626	ENSMUSGCSzfpb18	434246	022731837	006823440	-072	-009	14
7640	ENSMUSGCSzfpb19	78890	020261327	024418357	-1005	-0585	14
7667	ENSMUSGCSzfpb20	211484	003385726	004107424	-12775	-05375	14
7682	ENSMUSGCSzfpb21	216350	-01528641	029296049	-0625	-002	14
7707	ENSMUSGCSzfpb22	76260	011330614	-00946241	-05675	-03575	14
7758	ENSMUSGCSzfpb23	52700	003614830	-01115330	-06125	-0145	14
7803	ENSMUSGCSzfpb24	104499	-00557027	000696471	-0625	-00475	14
7811	ENSMUSGCSzfpb25	76980	013043651	-00731129	-10975	012	14
8005	ENSMUSGCSzfpb26	666173	-01097504	004553097	-05125	-032	14
8055	ENSMUSGCSzfpb27	225131	005185608	014032838	-09525	0005	14
8159	ENSMUSGCSzfpb28	22601	017958850	-00100158	-07125	-08525	14
8209	ENSMUSGCSzfpb29	76014	010444246	004672416	-0615	-01275	14
8278	ENSMUSGCSzfpb30	67785	-00535600	-01048635	-07125	-00525	14
8282	ENSMUSGCSzfpb31	29805	011419107	000647231	-08425	-00425	14
29	ENSMUSGCSzfpb32	69684	007417213	065275582	01375	0125	15
33	ENSMUSGCSzfpb33	11302	008673757	025213384	01725	-01225	15
42	ENSMUSGCSzfpb34	217262	015766416	047873907	-02	0095	15
44	ENSMUSGCSzfpb35	18671	011102346	078458189	-022	00225	15
50	ENSMUSGCSzfpb36	239273	023531565	058937613	02675	-009	15
52	ENSMUSGCSzfpb37	20927	001766525	030948607	-019	-01	15
56	ENSMUSGCSzfpb38	19300	010635738	021854853	0025	0055	15
62	ENSMUSGCSzfpb39	26357	005430977	046327953	-00375	00075	15
81	ENSMUSGCSzfpb40	226251	001956164	014950209	-00875	01875	15
102	ENSMUSGCSzfpb41	140590	020701637	008981187	-011	0155	15
126	ENSMUSGCSzfpb42	66659	006124988	023004938	-00925	-0085	15
160	ENSMUSGCSzfpb43	75894	014902891	008805052	-00525	00975	15
175	ENSMUSGCSzfpb44	432530	020482496	021511059	01875	-00425	15
179	ENSMUSGCSzfpb45	11512	022556408	033177252	0085	-024	15
181	ENSMUSGCSzfpb46	11515	-00049713	055333860	-013	-03475	15
190	ENSMUSGCSzfpb47	107831	-00077523	020921645	-00525	0055	15
194	ENSMUSGCSzfpb48	224792	017932218	075267143	01275	016	15
223	ENSMUSGCSzfpb49	17356	007592786	013087151	00225	02	15
231	ENSMUSGCSzfpb50	216439	025007461	021084799	01025	0235	15
234	ENSMUSGCSzfpb51	15463	008807230	013368308	-00425	005	15
239	ENSMUSGCSzfpb52	239528	015284323	014120187	0155	0205	15
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249	ENSMUSGCSzfpb54	226747	-00008993	032092428	-00725	-014	15
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339	ENSMUSGCSzfpb57	105827	009377172	051494991	00125	01275	15
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383	ENSMUSGCSzfpb60	223690	004418446	017073738	-01275	0245	15
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503	ENSMUSGCSzfpb68	12549	018926928	025231686	00285	-01225	15
506	ENSMUSGCSzfpb69	232906	020354729	012873602	00115	005	15
511	ENSMUSGCSzfpb70	11855	-00271753	022695848	-00775	00275	15
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590	ENSMUSGCSzfpb75	65257	027250586	012948738	00125	-00075	15
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859	ENSMUSGCSzfpb87	12217	013088215	026141045	-02475	-00775	15
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887	ENSMUSGCSzfpb89	12268	153210721	210844048	03325	0755	15
893	ENSMUSGCSzfpb90	63955	077354642	052338459	-01675	-0035	15



897	ENSMUSGC	Cachd1	320508	021872103	057828188042	-0065	15
899	ENSMUSGC	Cacna1b	12287	-00670667	028343681-00075	00225	15
903	ENSMUSGC	Cacna1g	12291	005609389	01302348201475	00525	15
917	ENSMUSGC	Cacng8	81905	-01153337	021479291-002	00375	15
940	ENSMUSGC	Camk1g	215303	029161545	008055345007	0135	15
978	ENSMUSGC	Carmil3	268747	049071953	0145729110205	01375	15
980	ENSMUSGC	Cars1	27267	012118350	014766416-00575	002	15
998	ENSMUSGC	Cavin1	19285	019451103	030983252-002	0145	15
999	ENSMUSGC	Cavin2	20324	01876667	2041595630-00425	0195	15
1022	ENSMUSGC	Ccar1	67500	022543021	022770370-00125	0325	15
1034	ENSMUSGC	Ccdc141	545428	046672313	015989065-01575	022	15
1051	ENSMUSGC	Ccdc6	76551	031093562	010985279-02125	017	15
1052	ENSMUSGC	Ccdc85a	216613	029360545	023588876-011	00775	15
1053	ENSMUSGC	Ccdc85b	240514	008796307	0117430830185	196262e-11	15
1074	ENSMUSGC	Ccnyl1	227210	-00119485	015914233-00775	02225	15
1088	ENSMUSGC	Ccl109	235505	004221544	05057531410295	-00275	15
1090	ENSMUSGC	Ccl163	93671	049740348	081390734032	03575	15
1116	ENSMUSGC	Ccdc371l	67072	004620671	022508337-01325	0165	15
1120	ENSMUSGC	Cdc42bpb	217866	016620973	016341652-0025	001	15
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1189	ENSMUSGC	Cep76	225659	001793763	023898499-01775	02725	15
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1212	ENSMUSGC	Cgnt1	68178	002102069	020813116-007	02625	15
1226	ENSMUSGC	Chd2	244059	019254488	008873843-01975	-00225	15
1231	ENSMUSGC	Chd8	67772	006376196	014156164-0185	00475	15
1240	ENSMUSGC	Chkb	12651	005127558	016712929-01425	-01025	15
1255	ENSMUSGC	Chordc1	66917	011090625	02452142401075	01225	15
1282	ENSMUSGC	Cit	12704	014973630	011820580-01	-26986e-16	15
1337	ENSMUSGC	Clvs2	215890	019993676	007431510-007	0015	15
1343	ENSMUSGC	Ccmc4	1.06E+08	008128426	0201318940085	018	15
1358	ENSMUSGC	Cnksr2	245684	016244581	02865552300975	03075	15
1369	ENSMUSGC	Cnot3	232791	009466973	018531186-0195	-00125	15
1404	ENSMUSGC	Cog1	16834	013817936	009764018-0125	01325	15
1420	ENSMUSGC	Col4a1	12826	010587228	0159540720045	0235	15
1421	ENSMUSGC	Col4a2	12827	033265006	02311388702425	035	15
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1498	ENSMUSGC	Cpeb2	231207	-00112157	01585427201025	018	15
1510	ENSMUSGC	Cpne7	102278	061509665	02491934704175	00325	15
1533	ENSMUSGC	Creb1	12912	021435768	016725100-007	02475	15
1551	ENSMUSGC	Crocc	230872	030024182	009021250-008	02775	15
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1643	ENSMUSGC	Cui5	75717	014389967	011943111-0085	-00975	15
1704	ENSMUSGC	Cubj2p	69601	020849877	009756536-00875	0035	15
1711	ENSMUSGC	Cdaird3	67789	015291238	013331888-00525	-00975	15
1714	ENSMUSGC	Dapk1	69635	022478764	01733582200575	-008	15
1733	ENSMUSGC	Dcaf6	74106	021010959	010413266-01425	02375	15
1764	ENSMUSGC	Ddc	13195	-00771095	032785862-01675	-0065	15
1768	ENSMUSGC	Ddn	13199	026844736	019305376-0035	-00575	15
1784	ENSMUSGC	Ddx27	228889	028394635	009022204-02775	00175	15
1810	ENSMUSGC	Dennd1b	329260	015859572	014209308-0145	021	15
1817	ENSMUSGC	Dennd6a	211922	012450666	016768923-02225	-00625	15
1834	ENSMUSGC	Dgkg	110197	045103956	04230048602875	-02375	15
1837	ENSMUSGC	Dgkq	110524	006184451	01497164201325	00675	15
1871	ENSMUSGC	Dimt1	66254	019702874	03596653600175	-01875	15
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1896	ENSMUSGC	Dlgap4	228836	019688243	010420265011	00275	15
1920	ENSMUSGC	Dnajb4	67035	006794340	0154912240065	01225	15
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1938	ENSMUSGC	Dnajc3	1E+08	002620325	02678977701425	-00225	15
1964	ENSMUSGC	Dock11	75974	043925364	028550577-00025	-00375	15
1971	ENSMUSGC	Dock9	105445	016810126	0334376190055	-01025	15
1993	ENSMUSGC	Dpp4	13482	015852366	018348230-00925	009	15
2005	ENSMUSGC	Dpysl4	26757	025919877	004742076-0095	001	15
2014	ENSMUSGC	Dscaml1	114873	008386647	05186790602475	028	15
2037	ENSMUSGC	Dvl1	13542	014160600	00967721201325	-00025	15
2079	ENSMUSGC	Edc4	234699	027157640	011183255004	0035	15
2085	ENSMUSGC	Eea1	216238	021152163	0166431410105	-00625	15
2114	ENSMUSGC	Ehbp1	216565	019535253	010096185-016	00975	15
2117	ENSMUSGC	Ehd2	259300	031271126	0638004640055	04575	15
2132	ENSMUSGC	Elf2ak4	27103	008043602	013492051-013	008	15
2162	ENSMUSGC	Elf4ebp2	13688	017782697	009525195-00625	0155	15
2171	ENSMUSGC	Elf5b	226982	019731748	025216666017	-0055	15
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2188	ENSMUSGC	Elm	13717	006109264	02569563000175	012	15
2218	ENSMUSGC	Elm6	237711	019800833	008733948-00175	-0005	15
2226	ENSMUSGC	Eng	13805	006374136	037376708300725	03475	15
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2253	ENSMUSGC	Epb4114b	54357	020958948	017043389-0235	00425	15
2265	ENSMUSGC	Ephb2	13844	-00794421	043269377-00425	0015	15
2307	ENSMUSGC	Esam	69524	022408385	046560777001	00475	15
2398	ENSMUSGC	Fam184a	75906	017494424	0205824267-0025	01825	15
2455	ENSMUSGC	Fbxo31	76454	019234702	012882100007	0185	15
2457	ENSMUSGC	Fbxo4	106052	025787490	0234021110155	0105	15
2458	ENSMUSGC	Fbxo41	330369	015871259	020952731-003	02025	15
2473	ENSMUSGC	Fcgrt	14132	-00756749	028801214-00425	00125	15
2475	ENSMUSGC	Fcho2	218503	007573369	026258950-0025	004	15
2477	ENSMUSGC	Fcsk	234730	027727631	018335303-002	-0165	15
2481	ENSMUSGC	Fdx2	68165	056210505	021479450-01	-03475	15
2491	ENSMUSGC	Fgd2	26382	002181804	024960262022	-0095	15
2498	ENSMUSGC	Fgfr1	14182	000772730	026706289-009	-0015	15
2504	ENSMUSGC	Fhip1b	74349	012867771	013342559-0115	00125	15
2511	ENSMUSGC	Fhod3	225288	012481552	019780459-0125	-00675	15
2512	ENSMUSGC	Fibcd1	98970	020947466	033343816-0245	02825	15
2525	ENSMUSGC	Fkbp5	14229	083506011	08334624002125	05575	15
2532	ENSMUSGC	Flna	192176	011221315	019659734003	014	15
2533	ENSMUSGC	Flnb	286940	018375945	028615974-02025	005	15
2550	ENSMUSGC	Ftn1	14268	020246677	06387959102475	0245	15
2556	ENSMUSGC	Fndc3a	319448	011288441	014644004004	0185	15
2580	ENSMUSGC	Frmpd3	245643	040811335	016595754-00375	-00575	15
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2606	ENSMUSGC	Fv1	14349	028927933	035611430-01925	-0015	15
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2675	ENSMUSGC	Gas21l	78928	026920473	02269495800275	03	15
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2737	ENSMUSGC	Glt5	23687	021027766	031102878-0105	-001	15
2747	ENSMUSGC	Glt1	216963	029808202	013416573001	-018	15
2748	ENSMUSGC	Glt2	26431	003798226	018979977-0005	022	15
2865	ENSMUSGC	Gpcpd1	74182	005530140	031242039005	-00425	15
2897	ENSMUSGC	Gpt	76282	016239829	022612589-00975	-00125	15
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2948	ENSMUSGC	Gse1	382034	012626822	02240687302525	-0105	15
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3046	ENSMUSGC	Hdac4	208727	043345283	031167578-00225	-01225	15
3060	ENSMUSGC	Heatr1	217995	024332262	013268643-0255	-00275	15
3072	ENSMUSGC	Hecw1	94253	-01172527	023022729-01125	0015	15
3076	ENSMUSGC	Heph	15203	030025100	02559598201025	-00475	15
3079	ENSMUSGC	Herc3	73998	014988894	01023622601425	01025	15
3080	ENSMUSGC	Herc4	67345	015966744	0205156280155	0065	15
3098	ENSMUSGC	Hip1	215114	025653764	02488276900625	01575	15
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3162	ENSMUSGC	Hrh3	99296	-01550449	052547292-01225	0305	15
3183	ENSMUSGC	Hspa12b	72630	034226853	097510657-016	01425	15



3187	ENSMUSGcHspa2	15512	023083262029302009-02225	02225	15
3190	ENSMUSGcHspa5	14828	0055216240462381030365	-00725	15
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3250	ENSMUSGcIgf1r	16001	023249139052494836-01025	00675	15
3256	ENSMUSGcIghg2c	404711	060504101059259514-01775	04675	15
3300	ENSMUSGcInpp4a	269180	015584351008286030001	00225	15
3305	ENSMUSGcInpp5e	64436	007060028019876313005	00875	15
3321	ENSMUSGcInts2	70422	-00867615022685923-01375	0225	15
3329	ENSMUSGcIpk6k1	27399	005542707012404303-0005	01775	15
3339	ENSMUSGcIqgap1	29875	-00137184015674387-004	0085	15
3340	ENSMUSGcIqgap2	544963	034652091056542410-0135	-034	15
3343	ENSMUSGcIqsec3	243621	028829033009047363-00025	0045	15
3349	ENSMUSGcIrf3	54131	017650482032164413-02125	012	15
3353	ENSMUSGcIrs2	384783	019259401012458564-01725	014	15
3365	ENSMUSGcIrsym1	71780	02314239030602641029	03675	15
3369	ENSMUSGcItga1	109700	-00312418051279089-00875	0455	15
3374	ENSMUSGcItga7	16404	0144445101841193300675	196262e-1i	15
3384	ENSMUSGcItih2	16425	02472008603298842801125	025	15
3388	ENSMUSGcItm2a	16431	-01036089069064785-00425	025	15
3397	ENSMUSGcItpr3	16440	037757815081476508-0335	03525	15
3412	ENSMUSGcIcad	240185	018213892015525885-02925	-004	15
3465	ENSMUSGcKcnh3	16512	010702475025784229-0195	-015	15
3486	ENSMUSGcKcnn2	140492	04004885064935537011	-03625	15
3488	ENSMUSGcKcnq2	16536	004575897022262213012	017	15
3498	ENSMUSGcKctd12b	207474	01273248401622386700425	0085	15
3509	ENSMUSGcKctd8	243043	006869917032555201325	012	15
3527	ENSMUSGcKif11	16551	00869179602547051901	-02325	15
3584	ENSMUSGcKrit1	79264	010169588035821599-017	00475	15
3589	ENSMUSGcKsr2	333050	0161947980091270470195	00625	15
3603	ENSMUSGcLama5	16776	-00442985033168634-0205	01075	15
3605	ENSMUSGcLamb2	16779	-00437866030732648-00725	02325	15
3617	ENSMUSGcLanc13	236285	02472260103122827301875	03625	15
3621	ENSMUSGcLarp1	73158	020280711019418704-0075	-0045	15
3725	ENSMUSGcLrch3	70144	009894105012766220-02075	0075	15
3727	ENSMUSGcLrln2	70530	03865587606707100501425	-014	15
3753	ENSMUSGcLrrc58	320184	0194092540149145054024	00975	15
3760	ENSMUSGcLrrc8c	100604	01451021106979035401575	-01125	15
3792	ENSMUSGcLtn1	78913	010809092017065923022	01625	15
3796	ENSMUSGcLum	17022	-01429668096605183-03675	-006	15
3799	ENSMUSGcLuzp1	269593	030702034016610166-02725	-001	15
3807	ENSMUSGcLy75	17076	01816464049481167806625	-0085	15
3809	ENSMUSGcLyn	17096	-00330638023166420-0035	022	15
3813	ENSMUSGcLypla1	18777	-00270057020946211-01525	-00775	15
3823	ENSMUSGcLypt	17101	00294725605687713-0065	-018	15
3825	ENSMUSGcLtnf11	93730	012166597017723303-0165	01025	15
3861	ENSMUSGcMan2c1	73744	025773351004942345-01725	-003	15
3880	ENSMUSGcMap2k6	26399	023194683032284765-0025	0105	15
3882	ENSMUSGcMap3k10	269881	023501773012522654-01825	-00075	15
3887	ENSMUSGcMap3k20	65964	004040721044571447033	-0005	15
3888	ENSMUSGcMap3k4	26407	019940844011787655-02	-0065	15
3889	ENSMUSGcMap3k5	26408	038737885003881984-018	003	15
3891	ENSMUSGcMap3k9	338372	022553749017822742-00525	0135	15
3893	ENSMUSGcMap4k2	26412	033348105027306034035	0105	15
3894	ENSMUSGcMap4k3	225028	026242967022755719006	-0075	15
3909	ENSMUSGcMapk4	225724	038359609020470300-002	0105	15
3932	ENSMUSGcMark4	232944	0210596220138821480075	02025	15
3937	ENSMUSGcMast1	56527	033506776005978101-002	-00575	15
3940	ENSMUSGcMast4	328329	018438105031998781-029	0205	15
3948	ENSMUSGcMavs	228607	01770452014479190-0165	00725	15
3949	ENSMUSGcMax	17187	012475075014048064-01075	013	15
3974	ENSMUSGcMcmcbp	210711	011588051014529308-01	017	15
3982	ENSMUSGcMcub	66815	0111017350379183130355	-0075	15
4030	ENSMUSGcMertk	17289	025369764034618028-01075	-02125	15
4041	ENSMUSGcMetti17	52535	017324240301504386-00025	-0235	15
4074	ENSMUSGcMlb2	76580	016804900101106129801075	-00375	15
4093	ENSMUSGcMlndy1	75007	-00042980024100633-015	-002	15
4132	ENSMUSGcMon2	67074	00329465801547708300025	02175	15
4146	ENSMUSGcMphosph8	75339	03572296002563844101975	03125	15
4161	ENSMUSGcMrc1	17533	002281785032619255015	-0005	15
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4291	ENSMUSGcMtor	56717	0118633340123788300075	-00575	15
4297	ENSMUSGcMtrf11	108853	0262337390384308970335	01825	15
4318	ENSMUSGcMycbp2	105689	-00481146017065970-0055	0085	15
4323	ENSMUSGcMyh11	17880	020773148072543601-004	04075	15
4328	ENSMUSGcMyli2b	67938	016860245019507786-01475	0105	15
4337	ENSMUSGcMyo1c	17913	00015255503210868200475	-018	15
4350	ENSMUSGcMyrio	245049	03111962300809375011	02475	15
4382	ENSMUSGcNamp1	59027	-00593375021709773-01725	0095	15
4389	ENSMUSGcNapepld	242864	026623285027862056-01475	-022	15
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4434	ENSMUSGcNcoa7	211329	005637047017371571-004	009	15
4468	ENSMUSGcNdufaf4	68493	001644715020399791-0235	-00125	15
4557	ENSMUSGcNhsl2	1e+08	-00140294024564364-003	009	15
4569	ENSMUSGcNipbl	71175	007527008019953613-02	-00725	15
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4626	ENSMUSGcNostrin	329416	027603248041074157-026	01975	15
4665	ENSMUSGcNrf1	18181	019753838013446361-0055	0205	15
4696	ENSMUSGcNt5dc2	70021	016009459017125075018	01225	15
4738	ENSMUSGcNudt7	67528	04976658102355699903225	00125	15
4747	ENSMUSGcNup153	218210	012941288022706180-02975	-00725	15
4766	ENSMUSGcNvl	67459	002270228020075484-0105	0275	15
4770	ENSMUSGcNxn	18230	035033366051850871018	0075	15
4781	ENSMUSGcOc1n	18260	-00412183071223228-01225	0505	15
4790	ENSMUSGcOgfr11	70155	008624204021674286-006	-002	15
4821	ENSMUSGcOsbpl3	71720	010672456020449857-01375	-00475	15
4879	ENSMUSGcPakap	677884	02985998021357872-01	00575	15
4884	ENSMUSGcPalmd	114301	009683362028957693-01525	0215	15
4895	ENSMUSGcPanx2	406218	021801605013830819-00125	015	15
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4979	ENSMUSGcPcnx3	104401	-0066875202570802300925	0055	15
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5050	ENSMUSGcPdzs2	68070	01035305802740783100925	032	15
5056	ENSMUSGcPecam1	18613	0130312047392957-02	-00125	15
5062	ENSMUSGcPelo	105083	005467622014880782-00625	-0125	15
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5182	ENSMUSGcPik3r4	75669	-00415272020226043-00325	-01075	15
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5193	ENSMUSGcPip5k1c	18717	022521605006144269-00975	-0065	15
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5201	ENSMUSGcPitpnm3	327958	01383612100962864301975	-00125	15
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5280	ENSMUSGcPlxna1	18844	00183280703068395801175	0225	15
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5288	ENSMUSGcPlxnd1	67784	00773387302279682502125	00725	15
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5364	ENSMUSGcPpat	231327	018418295019834676013	03125	15
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5399	ENSMUSGcPpox	19044	014583981017478865-009	01075	15
5419	ENSMUSGcPpp1r37	232947	0206197170088329190035	-008	15
5426	ENSMUSGcPpp1r9b	217124	023637817014166306012	0205	15
5460	ENSMUSGcPpqi1	244418	-00185201 019505820-014	-00575	15
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5592	ENSMUSGcPsm5	66998	0123992270118063000135	0195	15
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5735	ENSMUSGcRab23	19335	0163353230095944101225	-0025	15
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5799	ENSMUSGcRai14	75646	02726122C0310120970005	-00475	15
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6428	ENSMUSGcSerp1nf2	18816	006800274042438280-00425	037	15
6452	ENSMUSGcSfn	55948	0072548230246637940025	02175	15
6498	ENSMUSGcSh3rf3	237353	02900207804151459602525	02375	15
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6537	ENSMUSGcSipa1i3	74206	027991545030374351-003	-01875	15
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6550	ENSMUSGcSic12a4	20498	-00796153 029374491-016	00925	15
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6577	ENSMUSGcSic1a5	20514	-01186943 062446176-01025	-01675	15
6604	ENSMUSGcSic25a24	229731	01354595C058092142027	-02075	15
6609	ENSMUSGcSic25a29	214663	010349455018577253-02025	-005	15
6611	ENSMUSGcSic25a32	69906	00077578C021132272-01625	-011	15
6631	ENSMUSGcSic2a1	20525	017614035082896284-02325	-02975	15
6686	ENSMUSGcSic5a3	53881	-01598894 038088396-001	00025	15
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6708	ENSMUSGcSic7a5	20539	00886530C041830944-01425	01725	15
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6766	ENSMUSGcSimg8	74133	006599226023366653-0065	01025	15
6804	ENSMUSGcSnph	241727	030181803024358277-00525	-0235	15
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6915	ENSMUSGcSpred1	114715	018436683009549571-019	-00075	15
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6961	ENSMUSGcSrsf11	69207	00882973701168167501575	01175	15
6978	ENSMUSGcSsh2	237860	013712807023110906-00325	0245	15
6979	ENSMUSGcSsh3	245857	05158835702695830102675	0205	15
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7170	ENSMUSGcTaf2	319944	015312208016288483-002	-005	15
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7392	ENSMUSGcTmed8	382620	00454278501286641800925	-00325	15
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7622	ENSMUSGcTrim47	217333	02538683506582738-0425	00325	15
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7662	ENSMUSGcTsc22d3	14605	063643812047560815017	02825	15
7692	ENSMUSGcTtbk1	106763	03150496502048051-01275	008	15



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7723	ENSMUSGCTub	22141	023510818023275016-01225	00625	15
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7783	ENSMUSGCUba6	231380	009035083016020126007	006	15
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7819	ENSMUSGCUbe3c	100763	016265978010027154001	-00425	15
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7926	ENSMUSGCUsp25	30940	01357922402631937700675	01025	15
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7982	ENSMUSGCUvd	22330	02529601104521246800775	00425	15
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8128	ENSMUSGCVwnc2	52357	016325253010665630012	017	15
8183	ENSMUSGCVytdc2	240255	012669497029013479117757e-1	003	15
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8239	ENSMUSGCVzf3h1	216345	012638775041374068-0185	021	15
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108	ENSMUSGCAce	11421	-02306001 031930138-02275	-07	16
157	ENSMUSGCAcyp1	66204	004320876-00634568-0255	-06725	16
268	ENSMUSGCAcyp1	230959	-0258995 031133654-02675	-1135	16
288	ENSMUSGCAkrlb10	67861	016692606-0081924803425	-07675	16
303	ENSMUSGCAldh112	216188	001886187-00051041-0005	-0615	16
331	ENSMUSGCAlyref	21681	005438382-000191760-0005	-11075	16
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7619	ENSMUSGcTrim37	68729	014665305-009466630365	-13325	16	
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7711	ENSMUSGcTti2	234138	-00941589-00456685-00275	-0515	16	
7896	ENSMUSGcUqcr10	66152	003251072-02684552	06375	-159	16
7955	ENSMUSGcUtp4	21771	017643833-0108847	00075	-09825	16
7987	ENSMUSGcVdac2	22334	-00114207-01412864	01125	-0625	16
7988	ENSMUSGcVdac3	22335	-00008300-01779118	07025	-078	16
8000	ENSMUSGcVma21	67048	-0338035800174747602625	-069	16	
8058	ENSMUSGcWars2	70560	023286047007494637-005	-063	16	
8095	ENSMUSGcWdr45b	66840	010057733-00301949	01725	-06725	16
8126	ENSMUSGcWtap	60532	-004125050005231380275	-07	16	
8157	ENSMUSGcYae1d1	67008	001363252-00814020-00725	-057	16	
8206	ENSMUSGcZc3h13	67302	-004668200123681320375	-093	16	
8235	ENSMUSGcZfand1	66361	-00233198-00791164-05575	-09425	16	
8271	ENSMUSGcZkscan16	16-08	-0198944801626083702825	-0675	16	
142	ENSMUSGcZkctn2	11472	-02739490-01078770-004	-0425	17	
153	ENSMUSGcZcacr1c	269275	-08518120-01958998-015	-04275	17	
207	ENSMUSGcAdora2a	11540	-12929267-01257415-09875	00775	17	
391	ENSMUSGcAno3	228432	-08812666005794593-00425	-04325	17	
472	ENSMUSGcArc	11838	-11697426-09976625-01275	-04225	17	
489	ENSMUSGcArg2	11847	-04654348-0599602301775	0235	17	
599	ENSMUSGcAsic4	241118	-09360031003663217-00125	02975	17	
923	ENSMUSGcCadm2	239857	-04647732027351668-0445	00775	17	
932	ENSMUSGcCalhm2	72691	-07597383-01235520	00525	-0095	17
1091	ENSMUSGcCd180	17079	-08887362-0240417300475	00525	17	
1093	ENSMUSGcCd276	102657	-03925224-01458628-00125	0055	17	
1105	ENSMUSGcCd9	12527	-06621136-00260833-00425	02275	17	
1129	ENSMUSGcCdh12	215654	-07804170017001595-00825	-00525	17	
1138	ENSMUSGcCdh6	12563	-06750512012376745-04225	-0115	17	
1263	ENSMUSGcChrm4	12672	-07692407-00199746-02025	031	17	
1267	ENSMUSGcChsy3	78923	-06557331010959701-0065	02425	17	
1318	ENSMUSGcClmp	71566	-05343365-00457889-05025	-00175	17	
1384	ENSMUSGcCntn3	18488	-06878343-0011043200875	00575	17	
1484	ENSMUSGcCox4i2	84682	-04100081-00909237i-03	02025	17	
1539	ENSMUSGcCrh	12918	-07303614-03632802i-00625	015	17	
1577	ENSMUSGcCsm3	239420	-0869050101070742102	015	17	
1587	ENSMUSGcCspg4	121021	-0793416201814969600775	011	17	
1678	ENSMUSGcCyp2s1	74134	-09543046-00231558-06275	-056	17	
1720	ENSMUSGcDbh	13166	-07340677-05647508-022	-00325	17	
2009	ENSMUSGcDrd1	13488	-12925409002974859-0815	00925	17	
2069	ENSMUSGcEcel1	13599	-07603952-01046989	00525	0435	17
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2106	ENSMUSGcEfnb3	13643	-05308301-00361987-01475	001	17	
2236	ENSMUSGcEnpp4	224794	-04520321021825910-03275	02425	17	
2242	ENSMUSGcEntpd3	215446	-05152720-00664928	0005	01	17
2275	ENSMUSGcEpn3	71889	-07910375-07445431i-034	-0115	17	
2431	ENSMUSGcFrac3	270120	-07389365010662168-0165	-0065	17	
2515	ENSMUSGcFilip1	70598	-06006213-01531780-035	03825	17	
2688	ENSMUSGcGbp11	634650	-06901803-03878875-03775	-01375	17	
2750	ENSMUSGcGjb1	14618	-07913930-00409048-02	-00825	17	
2752	ENSMUSGcGjc2	118454	-08878552-00737727-018	-01025	17	
2754	ENSMUSGcGjd2	14617	-08044088-01088929-038	053	17	
2855	ENSMUSGcGpat3	231510	-07605611-0176576300075	011	17	
2877	ENSMUSGcGpr158	241263	-05703902012349159-01625	-00775	17	
2883	ENSMUSGcGpr37	14763	-05870565013654281-03025	-02425	17	
2885	ENSMUSGcGpr68	238377	-04614132-02174511-02825	00925	17	
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2893	ENSMUSGcGprn3	243385	-07430939-01801384i-02025	019	17	
2953	ENSMUSGcGsn	227753	-04780552016266546-029	031	17	
2961	ENSMUSGcGstm2	14863	-03121913-02927843-02125	-00125	17	
3041	ENSMUSGcHdac1	433759	-05231650-00317044i-01125	0015	17	
3073	ENSMUSGcHecw2	329152	-04397917-03505584-008	-00425	17	
3204	ENSMUSGcHtr1f	15557	-10424209010646655-016	00775	17	
3372	ENSMUSGcItga5	16402	-05487444-01663274i-01125	00775	17	
3381	ENSMUSGcItgb4	192897	-05186607-02584282i-0505	01625	17	
3447	ENSMUSGcKcna4	16492	-06518681-00077311-01675	0025	17	
3463	ENSMUSGcKcnh1	16510	-04974325007498863-0345	011	17	
3491	ENSMUSGcKcns2	16539	-04889257-00528070-0155	0365	17	
3628	ENSMUSGcLars2	102436	-14342859-2245513300025	-0175	17	
3643	ENSMUSGcLdlr	16835	-10826182-00649715i-0075	-0015	17	
3653	ENSMUSGcLgals3bp	19039	-05805009-02568864-0035	-03575	17	
3695	ENSMUSGcLmcd1	30937	-04067908-07720920i-0425	0135	17	
4062	ENSMUSGcMfsd6	98682	-04260350013350524-0425	-00175	17	
4313	ENSMUSGcMx1	17857	-06887646-07977365i-0615	-04175	17	
4489	ENSMUSGcNdufs5	595136	-15327196-0208600601375	-05025	17	
4530	ENSMUSGcNeu3	50877	-05304655-037789800135	-02325	17	
4533	ENSMUSGcNiem	68810	-07841359-07230208-08175	-0315	17	
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4648	ENSMUSGcNipx2	53324	-05749225-02348252-03275	-03025	17	
4650	ENSMUSGcNipy	109648	-07741669-01006637	01875	-01775	17
4666	ENSMUSGcNrg3	18183	-04955597008100959-068	02075	17	
4709	ENSMUSGcNts	67405	-09916212-03352465	0225	034	17
4778	ENSMUSGcObecn	380698	-08727483-00461463-02725	-00125	17	
4795	ENSMUSGcOlfm3	229759	-0944332502343058901025	-01675	17	
4803	ENSMUSGcOpalin	226115	-07457728-02371180-0525	-002	17	
4807	ENSMUSGcOprik1	18387	-07998347022821168-09475	055	17	
4944	ENSMUSGcPcdhb12	93883	-07097906000561419-04075	-003	17	
4947	ENSMUSGcPcdhb18	93889	-08273098-00154011-03975	023	17	
4948	ENSMUSGcPcdhb20	93891	-05449360004558643-0465	-03725	17	
4949	ENSMUSGcPcdhb21	93892	-06163621-02121034-02075	-031	17	
4970	ENSMUSGcPclo	26875	-05745821025517912-03475	-00225	17	
4981	ENSMUSGcPcp4l1	66425	-07411191-02040437-052	02175	17	
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5246	ENSMUSGcPlekhd1	217682	-03949792-06900839-01375	-02	17	



5257	ENSMUSGcPlip	67801	-07248056	-01265464	-0595	0095	17
5268	ENSMUSGcPlppr1	272031	-10493828	002623835	-02825	07425	17
5272	ENSMUSGcPlppr5	75769	-06107239	015942359	-056	0615	17
5278	ENSMUSGcPlxdc1	72324	-05156953	000661961	-02775	015	17
5306	ENSMUSGcPnoc	18155	-07155723	-02873930	000575	-025	17
5416	ENSMUSGcPpp1r1b	19049	-06776891	-02958069	-01425	0305	17
5632	ENSMUSGcPtk7	71461	-04073646	011054703	-02325	00825	17
5637	ENSMUSGcPtp4a1	19243	-07790027	-00404808	-0535	0075	17
5655	ENSMUSGcPtprc	19264	-05181327	-01511349	-0435	0095	17
5685	ENSMUSGcPvr	52118	-07406402	-02109362	-032	00425	17
5751	ENSMUSGcRab37	58222	-08482772	-04420271	-03275	017	17
5843	ENSMUSGcRasd2	75141	-05037539	-00776485	-03675	-0025	17
5926	ENSMUSGcRem2	140743	-05856347	-02598483	-0325	023	17
6203	ENSMUSGcRm1	104001	-05489943	005503177	-02725	-0245	17
6228	ENSMUSGcRm3	20192	-06974160	001142115	0901	-02125	17
6236	ENSMUSGcS100a8	20201	-14424343	-00333478	-113	-005	17
6240	ENSMUSGcS1pr5	94226	-06589723	-03381057	-0425	02725	17
6308	ENSMUSGcScn4b	399548	-12151012	-01054462	-071	0335	17
6389	ENSMUSGcSema5a	20356	-04404217	-00144219	-0265	-013	17
6391	ENSMUSGcSema6a	20358	-06423790	012223559	00075	004	17
6439	ENSMUSGcSez6	20370	-05282455	007139077	-019	-0155	17
6465	ENSMUSGcSgcz	244431	-06293528	-00647620	-009	041	17
6497	ENSMUSGcSh3rf2	269016	-12769596	-03863199	-02175	058	17
6514	ENSMUSGcShmt1	20425	-03556589	-0428803	-036	01775	17
6547	ENSMUSGcSlc10a4	231290	-16303508	-05167442	-0495	04475	17
6560	ENSMUSGcSlc16a1	20501	-05751550	-03454853	001	01875	17
6566	ENSMUSGcSlc17a6	140919	-06244357	-00127263	-01475	-0015	17
6570	ENSMUSGcSlc18a3	20508	-08763311	015372831	-00675	-026	17
6586	ENSMUSGcSlc24a2	76376	-06258080	022537047	-033	-0075	17
6632	ENSMUSGcSlc2a13	239606	-06309526	023874943	-0195	00625	17
6688	ENSMUSGcSlc5a7	63993	-11779474	020177857	-04125	-01825	17
6691	ENSMUSGcSlc6a11	243616	-03372699	-02001235	-03475	-014	17
6700	ENSMUSGcSlc6a9	14664	-06110973	011179451	-01875	00775	17
6714	ENSMUSGcSlc8a3	110893	-05062165	-00332724	-0115	-013	17
6780	ENSMUSGcSmpd3	58994	-04354387	022590536	-05075	00575	17
6799	ENSMUSGcSncg	20618	-05989779	-02789943	-05225	00175	17
6909	ENSMUSGcSpock3	72902	-09353786	011882320	020245	-00925	17
6986	ENSMUSGcSst	20604	-06254107	-01179438	-0445	-02	17
7028	ENSMUSGcSk26	70415	-06577753	-01153135	-02625	036	17
7038	ENSMUSGcStmn4	56471	-05352035	-02770420	-02325	-025	17
7049	ENSMUSGcStrip2	320609	-07076330	017987191	-008	00875	17
7105	ENSMUSGcSv2c	75209	-07307317	011789431	-022	05425	17
7122	ENSMUSGcSynr1	64009	-05355174	-00026120	-01675	-0185	17
7134	ENSMUSGcSynpr	72003	-06514886	019333761	-02725	-01775	17
7150	ENSMUSGcSyn6	54524	-06307372	-00713387	-0045	0365	17
7152	ENSMUSGcSyn9	60510	-04283364	-01540604	-0335	0085	17
7164	ENSMUSGcTacr1	21336	-10747240	008146487	-0775	-03	17
7180	ENSMUSGcTagln	21345	-08172357	-04161611	0002	02575	17
7281	ENSMUSGcTenn4	23966	-03674885	001238639	-0165	013	17
7307	ENSMUSGcTh	18223	-05261968	007666356	-0195	02125	17
7311	ENSMUSGcThbs1	21825	-10874186	-01007686	-02125	-02525	17
7425	ENSMUSGcTmem163	72160	-05024838	007801488	-0215	03	17
7483	ENSMUSGcTmem74b	108832	-03938189	-03356981	-00875	035	17
7587	ENSMUSGcTram1l1	229801	-05944114	013973092	-01725	-0055	17
7716	ENSMUSGcTtn	22138	-12673018	-02459212	-03175	01625	17
7721	ENSMUSGcTthy2	117160	-06915017	022909466	-0075	00275	17
7990	ENSMUSGcVgf	381677	-04778988	007608478	-05225	032	17
8181	ENSMUSGcYrdc	230734	-03474954	-01153472	-035	-00225	17
8231	ENSMUSGcZdhc9	208884	-04948981	014637387	-01925	01325	17
124	ENSMUSGcAcpi1	11431	-00367548	-00890171	-11725	-124	18
241	ENSMUSGcAgpat1	55979	-02466861	-00115283	05825	-01325	18
316	ENSMUSGcAlg11	207958	-04007746	029603207	0595	-03175	18
317	ENSMUSGcAlg13	67574	002738231	-01708449	20275	-05175	18
334	ENSMUSGcAmdhd2	245847	000148215	-00873298	082	-09425	18
580	ENSMUSGcArsg	74008	-06489365	-00832265	-0775	-038	18
583	ENSMUSGcArxes2	76976	-06180791	002948609	07075	-08825	18
603	ENSMUSGcAsph	65973	-03916672	-00827848	0585	-012	18
650	ENSMUSGcAtp23	68876	00220502c	-00590738	072	-0275	18
735	ENSMUSGcBag4	67384	00212161c	001223456	07375	-06775	18
831	ENSMUSGcBpnt2	242291	-03832231	0136939	08225	-03	18
844	ENSMUSGcBri3bp	76809	-02293000	018007205	11625	-01	18
856	ENSMUSGcBsd2	14705	-02145190	016300328	0505	-0185	18
914	ENSMUSGcCacng3	54376	-03097214	011900393	08075	-05025	18
916	ENSMUSGcCacng7	81904	001077433	-00132716	066	-016	18
933	ENSMUSGcCalthm5	103511	-04885562	006642116	1045	-018	18
935	ENSMUSGcCalr	12317	-01591112	011868872	11825	-015	18
936	ENSMUSGcCulu	12321	-01622357	004106361	04425	-0325	18
1043	ENSMUSGcCcd28b	66264	-03915645	001969841	16775	-06525	18
1097	ENSMUSGcCd36	12491	-05218303	-04737844	05175	-017	18
1098	ENSMUSGcCd38	12494	-03194431	003414963	06725	-06625	18
1100	ENSMUSGcCd47	16423	-05278588	013521446	07875	-02	18
1141	ENSMUSGcCdh9	12565	-04700714	021284769	05825	-02725	18
1238	ENSMUSGcChid1	68038	-02162231	-00113357	062	-01725	18
1279	ENSMUSGcCisd1	52637	-01082598	-00871159	14275	-04975	18
1437	ENSMUSGcComt	12846	-03651780	-00512122	053	-0625	18
1656	ENSMUSGcCxc12	20315	010666049	089779613	09675	-01025	18
1823	ENSMUSGcDer11	67819	-02974755	019806993	067	-00375	18
1841	ENSMUSGcDhcr24	74754	-03918528	008053542	09925	0045	18
1876	ENSMUSGcDipk2a	68861	-04145444	049083938	07175	-01225	18
1916	ENSMUSGcDnajb11	67838	-01767858	015507779	059	-0285	18
1976	ENSMUSGcDolk	227697	-02069625	006931913	1175	-08025	18
1977	ENSMUSGcDolpp1	57170	-03239991	024442328	1375	-05525	18
1989	ENSMUSGcDpmt1	13480	-02184520	022056981	041	-05525	18
1998	ENSMUSGcDpy191i	244745	-02699164	013548930	06375	-0415	18
2062	ENSMUSGcEbag9	55960	-02820313	024168896	097	-003	18
2205	ENSMUSGcEmc3	66087	-02260131	-00020346	07175	-02075	18
2235	ENSMUSGcEnpp2	18606	-02634416	046079163	08775	00475	18
2292	ENSMUSGcErg28	58520	-05070071	-00356868	0455	-06825	18
2298	ENSMUSGcErlec1	66753	-02306786	009133436	072	-0025	18
2306	ENSMUSGcErp44	76299	-02638226	024524052	0635	-003	18
2340	ENSMUSGcExosc3	66362	020418627	001644103	07725	-05225	18
2341	ENSMUSGcExosc4	109075	005008404	-00965702	14975	-04225	18
2349	ENSMUSGcExtl2	58193	-03195108	019674345	08225	-01425	18
2354	ENSMUSGcF3	14066	-05461091	-00981830	04475	-031	18
2365	ENSMUSGcFads6	328035	-01923602	005520613	0535	-068	18
2413	ENSMUSGcFam76b	72826	-02304918	028629483		1 0125 18	18
2621	ENSMUSGcG6pc3	68401	-01842269	011043280	20775	-05825	18
2671	ENSMUSGcGarrre1	233103	-00064976	003317908	05875	-0665	18
2785	ENSMUSGcGm20604	1.01E+08	-00623854	004983516	1395	-0585	18
2797	ENSMUSGcGna11	14672	011307401	00281536	0681	-09775	18
2804	ENSMUSGcGnao1	14681	001382145	-02134553	13975	-08525	18
2852	ENSMUSGcGpaal	14731	-00892962	017018426	06175	-00725	18
3000	ENSMUSGcGusb	110006	-01336863	013495833	0575	-04075	18
3002	ENSMUSGcGypa	14934	-09082082	004591739	1005	-04825	18
3015	ENSMUSGcHacd3	57874	-03139574	004038700	0585	-0105	18
3034	ENSMUSGcHccs	15159	-00264622	008744951	10605	-04025	18
3082	ENSMUSGcHerpud2	80517	-00590280	007973159	1155	014	18
3184	ENSMUSGcHspa13	110920	-03765457	042974720	0585	-02725	18
3239	ENSMUSGcIfR22	67286	010668521	-01949408	0985	314018e-1u	18
3286	ENSMUSGcImp2i	93757	-03574799	-02425840	0605	-01925	18
3288	ENSMUSGcImp3	102462	000517561	-00901193	08	-002	18
3297	ENSMUSGcIng2	69260	-00167058	-00788722	05575	-02025	18
3510	ENSMUSGcKdelr1	68137	-04207928	010655053	17875	-01775	18
3561	ENSMUSGcKlhl13	67455	-02549369	-03087178	06925	-00875	18
3649	ENSMUSGcLeprotl1	68192	-04221475	013929807	08025	-0455	18
3663	ENSMUSGcLhfp13	269629	-04316513	019094340	071	-01675	18



3690	ENSMUSGCLman2	66890	-00923233	0166309360635	-0295	18
3720	ENSMUSGCLratd1	105005	011043255	0110183960985	-068	18
3851	ENSMUSGCMagt1	67075	-00843487	01363884807575	-00675	18
3855	ENSMUSGCMan1a2	17156	-01090010	0188113250635	-0065	18
3866	ENSMUSGCManf	74840	-01393046	025903990049	-0245	18
3925	ENSMUSGCMarchf6	223455	-04644246	0150691250445	-053	18
3956	ENSMUSGCMbni1	56758	-01068236	01077104420025	-0365	18
3969	ENSMUSGCMcfd2	193813	-03262997	0169625470555	-08525	18
4069	ENSMUSGCMgst1	56615	-00936183	00335834309175	-03575	18
4108	ENSMUSGCMlip	69642	-01784243	-02785905-09775	-0485	18
4191	ENSMUSGCMrpl35	66223	000160733	-01711918 12175	-056	18
4279	ENSMUSGCMtuf3	76366	006851022	-01702600 121	-04825	18
4319	ENSMUSGCMydgf	28106	-03666417	-00122575054	-0335	18
4453	ENSMUSGCMoufa12	66414	001302280	-03362337 056	-05725	18
4624	ENSMUSGCMnos3	18127	039812131	08131209205275	-067	18
4771	ENSMUSGCMnph1	18231	-05762167	01415813308825	-08725	18
4772	ENSMUSGCMnph3	104079	-01082079	0144091240785	-0215	18
4829	ENSMUSGCOstc	66357	-03483152	011374521106	006	18
4856	ENSMUSGCPabpn1	54196	014444639	03425981007475	-01875	18
5017	ENSMUSGCPde8a	18584	-00004933	-02135228 05425	-06325	18
5098	ENSMUSGCPgap3	320655	-03720136	-00481095 059	-0125	18
5153	ENSMUSGCPphyip	105653	007508735	-0041577211575	-02775	18
5164	ENSMUSGCPigg	433931	-01803506	012767627053	-01225	18
5173	ENSMUSGCPik3ap1	83490	-02117258	-0195065005875	-02425	18
5261	ENSMUSGCPip2	18824	-04980161	-00782098 1245	-089	18
5316	ENSMUSGCPofut1	140484	-01402261	0001195010615	-02325	18
5454	ENSMUSGCPpt1	19063	035582234	-000390370975	-0255	18
5468	ENSMUSGCPprd5	54683	-00289371	-02317947 06175	-03875	18
5482	ENSMUSGCPrkab2	108097	003317872	000240791071	-0545	18
5616	ENSMUSGCPtdss1	19210	-01751303	0020574660535	-012	18
5742	ENSMUSGCRab2a	59021	000958761	-00655740058	-053	18
5761	ENSMUSGCRab40c	224624	010021374	-004612210875	-00025	18
6042	ENSMUSGCRnf181	66510	002534898	-0105559511775	-08	18
6084	ENSMUSGCRpl10a	19896	004451241	-01602897057	-04625	18
6225	ENSMUSGCRwdd2a	69519	-01871375	-0129775206025	-0185	18
6287	ENSMUSGCScamp3	24045	-02122549	01401852810625	-044	18
6332	ENSMUSGCSdf2	20316	-02980244	00181618814275	-05325	18
6341	ENSMUSGCSdhc	66052	008805875	-0175760208975	-0755	18
6342	ENSMUSGCSdhd	66925	006296698	-0058877107975	-02075	18
6467	ENSMUSGCSgk2	27219	-01141335	-0135117311375	-043	18
6629	ENSMUSGCSlc29a1	63959	-04050744	00235397406275	-04025	18
6638	ENSMUSGCSlc30a6	210148	-03726397	01839129107375	-00075	18
6677	ENSMUSGCSlc4a1	20533	-13549895	-02001565 06	-0905	18
6690	ENSMUSGCSlc6a1	232333	-02255656	00875194108225	-0275	18
6761	ENSMUSGCSmdt1	69029	-00803617	-03413418 05775	-05325	18
6942	ENSMUSGCSygap3	259302	022189660	-0048287818555	-0515	18
6982	ENSMUSGCSsr1	107513	-03259645	00978680305725	-00725	18
6984	ENSMUSGCSsr4	20832	-01525484	-00450757 1685	-1 18	
7053	ENSMUSGCSst3a	16430	-03920053	01452966508975	-007	18
7155	ENSMUSGCSsyn1	74126	-03171654	0207843800545	-01775	18
7362	ENSMUSGCTcd1	68385	000061783	0173878090915	00975	18
7375	ENSMUSGCTm9sf2	68059	-04296157	02676199606575	-02125	18
7390	ENSMUSGCTmed5	73130	-03578092	04431145907925	-043	18
7391	ENSMUSGCTmed7	66676	-04465891	0164438450725	00375	18
7393	ENSMUSGCTmed9	67511	-03613600	0058708370625	-00675	18
7401	ENSMUSGCTmem117	320709	-09058322	0186061831165	01075	18
7428	ENSMUSGCTmem167	66074	-00183793	01120792410125	-06575	18
7433	ENSMUSGCTmem178c	434008	-01848693	00627152810525	-022	18
7449	ENSMUSGCTmem223	66836	00599741	00954753205525	-046	18
7462	ENSMUSGCTmem260	218989	-02683519	00774901806825	-04775	18
7475	ENSMUSGCTmem59l	67937	-03728707	00318174805725	-00825	18
7605	ENSMUSGCTrhr	22045	-01186733	04646577905375	-05125	18
7639	ENSMUSGCTrmt11	98685	016981671	00390701011525	01475	18
7675	ENSMUSGCTspan3	56434	-02236694	00423360906975	-03325	18
7677	ENSMUSGCTspan33	232670	-02385432	00003983204125	-04775	18
7695	ENSMUSGCTt1c13	234875	-02176470	0180047340705	-0335	18
7746	ENSMUSGCTusc3	80286	-04256361	014774565063	-0555	18
7755	ENSMUSGCTxndc12	66073	-02628869	00952873405	-01975	18
7757	ENSMUSGCTxndc16	70561	-02460133	01623247007025	00025	18
7793	ENSMUSGCUbe2d1	216080	-00892423	-0007315305675	-0615	18
7824	ENSMUSGCUbl3	24109	004201596	-0045433907275	-029	18
7897	ENSMUSGUqcr11	66594	-00165842	-032249870915	-07475	18
7918	ENSMUSGUsp12	22217	004050658	001504612056	-0545	18
7985	ENSMUSGVcpkmt	207965	-01170885	-02408590098	-019	18
7998	ENSMUSGVkorc111	69568	-02565691	00377658805175	-0255	18
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8170	ENSMUSGVrpf4	67864	-04328786	02230530206475	-06	18
8202	ENSMUSGZcbrb05	67106	028231226	-01627990 11	-0155	18
8218	ENSMUSGZcchc8	70650	009781878	02365881407225	-04475	18
8263	ENSMUSGZhyve26	211978	000658396	0132282140555	-0175	18
51	ENSMUSGAbcc5	27416	010355858	020650067-04025	0555	19
79	ENSMUSGAb1l	11350	-01920943	010220750-025	026	19
83	ENSMUSGAb1lm3	319713	-00201560	010595764-02225	0215	19
86	ENSMUSGAb1rxas2	109359	006396027	002161195-034	01525	19
112	ENSMUSGAcly	104112	010622192	-008226311-06825	01975	19
140	ENSMUSGAct16b	83766	010082496	-007595671-03125	01075	19
173	ENSMUSGAdck2	57869	-01548743	029011731-05925	02775	19
193	ENSMUSGAdgre1	13733	-02945188	-004660691-07525	05525	19
212	ENSMUSGAdra1a	11549	-02086764	-018793251-0635	01925	19
215	ENSMUSGAdra2c	11553	-00889638	030294728-08725	049	19
221	ENSMUSGAdrap111	106877	-00686517	019369628-0345	0185	19
271	ENSMUSGAk2	11637	016154852	000649275-02225	026	19
279	ENSMUSGAkap13	75547	-02382188	006744461-048	03175	19
282	ENSMUSGAkap7	432442	005967945	-008616321-0175	02525	19
283	ENSMUSGAkap8	56399	013644965	016706656-037	00625	19
321	ENSMUSGAlg9	102580	-01996975	012011681-03025	02275	19
342	ENSMUSGAmot12	56332	-01253986	032792643-036	00625	19
386	ENSMUSGAnks1b	77531	004070921	-001214891-01925	021	19
387	ENSMUSGAnks3	72615	007343985	004353173-09275	0275	19
396	ENSMUSGAnp32e	66471	001862082	-009276191-038	05225	19
430	ENSMUSGAp4s1	11782	005556638	-011907111-0555	00075	19
433	ENSMUSGApaf1	11783	033523295	013877485-03325	04875	19
436	ENSMUSGApba3	57267	018765850	016049350-0345	0225	19
444	ENSMUSGApb1b	208117	-01940977	012935232-022	01425	19
445	ENSMUSGApi5	11800	005806081	-002117771-0185	02625	19
466	ENSMUSGAqp11	66333	00228773	0001822947-03675	0175	19
484	ENSMUSGArhgap17	70497	-00833682	-000636721-0345	0445	19
501	ENSMUSGArhgap27	544817	-00569679	017934519-02	02875	19
513	ENSMUSGArhgdlb	11857	006773024	-009869131-04925	0185	19
515	ENSMUSGArhgdf10	234094	003714967	-006330581-03575	0005	19
532	ENSMUSGArid1b	239985	004033861	013873129-02225	03325	19
533	ENSMUSGArid2	77004	005254025	024938182-043	-00225	19
548	ENSMUSGARl6ip1	54208	-03394415	0087097111-0335	003	19
574	ENSMUSGARpp21	74100	-01191098	-004484021-0445	02675	19
613	ENSMUSGAtad2b	320817	002058623	0168486101-057	01225	19
621	ENSMUSGAtg13	51897	014206087	001686428-0265	01825	19
623	ENSMUSGAtg16l1	77040	003328340	012478650-0475	009	19
662	ENSMUSGAtp5mc1	11951	-00304151	-021819351-03925	0005	19
684	ENSMUSGAtp6v1g2	66237	002374522	-017979571-04425	02875	19
690	ENSMUSGAtp9b	50771	-00075224	013699302-01825	018	19
700	ENSMUSGAtxn1l	52335	001410095	-008556001-035	0215	19
730	ENSMUSGBace1	23821	-03147594	021871067-04575	04375	19
731	ENSMUSGBad	12015	007930388	-002988301-06	012	19
734	ENSMUSGBag3	29810	-00837624	-012797031-02725	048	19
742	ENSMUSGBasp1	70350	001659175	-001715391-05125	03775	19
768	ENSMUSGBckdk	12041	016558864	-010650371-017	0315	19



771	ENSMUSGcBcl11b	58208	-01526979	005746878	-01825	01575	19
775	ENSMUSGcBcl7a	77045	008917495	-00038441	-027	01075	19
783	ENSMUSGcBegin	380785	015539612	004482862	-05375	-00325	19
794	ENSMUSGcBin2	668218	-01242020	-01078089	-022	01775	19
814	ENSMUSGcBnip3	12176	003082326	-00873256-	07025	0585	19
820	ENSMUSGcBola1	69168	-00612881	-01559294	-03375	01875	19
822	ENSMUSGcBola3	78653	007308607	-02632633-	04725	02875	19
823	ENSMUSGcBop1	12181	010502885	004541255	-029	004	19
835	ENSMUSGcBrat1	231841	-00365396	-00203811-	032	0015	19
839	ENSMUSGcBrd3	67382	005570732	001699498	-05825	0135	19
851	ENSMUSGcBrox	71678	-00275348	-01375532-	02225	0185	19
854	ENSMUSGcBrsk2	75770	009700771	002204803	-05575	0085	19
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862	ENSMUSGcBtbd10	68815	018775943	006066640	-0245	02625	19
873	ENSMUSGcBbw1	66882	001270934	-00947468-	02475	01375	19
892	ENSMUSGcCabin1	104248	013389346	-00178555-	05175	03	19
901	ENSMUSGcCacna1d	12289	005083886	017378750	-0365	005	19
905	ENSMUSGcCacna1i	239556	-00858898	018195729	-03575	015	19
924	ENSMUSGcCadn3	94332	-02763629	019996250	-0215	0115	19
931	ENSMUSGcCald1	109624	-00395001	020944542	-09425	04825	19
941	ENSMUSGcCamk2a	12322	019567569	011277533	-041	03425	19
944	ENSMUSGcCamk2g	12325	004085274	-00614312-	03675	008	19
952	ENSMUSGcCamsap2	67886	010782832	011055115	-034	01	19
954	ENSMUSGcCamta1	100072	-00140717	-00765047-	066	047	19
967	ENSMUSGcCapn7	12339	003489255	008111507	-03	-785046e-1	19
983	ENSMUSGcCasc3	192160	010765314	006673041	-03775	0315	19
986	ENSMUSGcCaskin1	268932	012586533	006885761	-03825	00075	19
991	ENSMUSGcCasp7	12369	-00483603	004590912	-058	05675	19
994	ENSMUSGcCast	12380	000940374	026172405	-044	-00525	19
1002	ENSMUSGcCbfa2t2	12396	011892265	006360952	-02325	00925	19
1015	ENSMUSGcCbx3	12417	001846053	-00082591-	03075	01425	19
1017	ENSMUSGcCbx8	30951	-00165203	-00123617	-054	-004	19
1023	ENSMUSGcCcar2	219158	009461905	-00214225-	04275	0205	19
1027	ENSMUSGcCccl12	72654	-00670471	-02572981-	0515	00475	19
1039	ENSMUSGcCccl186	213993	019777950	007662524	-0515	01925	19
1044	ENSMUSGcCccl32	269336	-00050569	-00850100-	02925	0265	19
1048	ENSMUSGcCccl50	67501	005176142	015562119	-046	02125	19
1050	ENSMUSGcCccl59	52713	-01933305	009698194	-03475	008	19
1054	ENSMUSGcCccl85c	668158	018375491	008062628	-0345	0255	19
1057	ENSMUSGcCccl9	243846	010187235	-00644532-	0435	01	19
1062	ENSMUSGcCccl93	70829	019916592	006870558	-04225	00775	19
1063	ENSMUSGcCccl97	52132	005644985	-00877630-	0325	00675	19
1069	ENSMUSGcCcnk	12454	012813656	009099486	-04225	-0045	19
1075	ENSMUSGcCcp110	101565	-02546929	-00272964-	0295	0375	19
1094	ENSMUSGcCczap	12488	-02067611	021791429	-03775	01975	19
1113	ENSMUSGcCcl27	217232	002736143	012311473	-021	0345	19
1142	ENSMUSGcCclp1	66626	011586466	-00806144-	033	014	19
1151	ENSMUSGcCclp20	105278	018824418	007751180	-0605	0205	19
1153	ENSMUSGcCclp4	12567	-00800254	-00871721-	05375	-003	19
1163	ENSMUSGcCcln2a1p	70925	-01211363	009070243	-03475	01225	19
1168	ENSMUSGcCclv3	321022	-00149280	-00999011-	03	003	19
1173	ENSMUSGcCelf3	78784	021154123	001548100	-0245	02175	19
1183	ENSMUSGcCep128	75216	-00007968	-01259590-	05125	-007	19
1186	ENSMUSGcCep170	545389	-00483175	006390904	-032	00275	19
1187	ENSMUSGcCep170b	217882	028909283	01079856	-02675	01875	19
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1205	ENSMUSGcCfap418	67157	010580507	003606045	-0365	0125	19
1211	ENSMUSGcCgn	70737	031037005	012937072	-0555	05875	19
1224	ENSMUSGcChchd6	66098	-01564125	-02450048	-0265	0195	19
1225	ENSMUSGcChchd7	66433	-0048924	016604407	-02675	04475	19
1243	ENSMUSGcChml	12663	-03713981	-00755912-	065	006	19
1244	ENSMUSGcChmp1a	234852	004332706	-00825687-	01975	02325	19
1276	ENSMUSGcCibar1	68099	-00490830	010069793	-02625	035	19
1281	ENSMUSGcCisd3	217149	-00014421	-01174483-	01975	03775	19
1283	ENSMUSGcCiz1	68379	027008135	012478186	-072	045	19
1308	ENSMUSGcClic1	114584	-00501897	009724701	-027	0205	19
1360	ENSMUSGcCnn3	71994	015204613	-00704204-	04225	0395	19
1368	ENSMUSGcCnot2	72068	013753911	015109735	-05425	-00025	19
1387	ENSMUSGcCntrn6	53870	-01183720	015822194	-012	025	19
1413	ENSMUSGcCol12a1	12816	-00076871	01301681	-0455	028	19
1415	ENSMUSGcCol19a1	12823	005936237	008161687	-03025	004	19
1456	ENSMUSGcCopp2	56358	010264518	-02114849	-05225	00325	19
1480	ENSMUSGcCox18	231430	-00351265	014956863	-0715	05	19
1570	ENSMUSGcCsd2c	105859	016724737	-01125835-	02525	015	19
1580	ENSMUSGcCsnk1e	27373	006549481	007149579	-01825	0195	19
1634	ENSMUSGcCtnbp2nl	80281	-00795645	-01476885-	03625	04225	19
1718	ENSMUSGcCtwp	13163	008051541	001579353	-0435	-00325	19
1728	ENSMUSGcCtcf1	321006	010058172	004210775	-0485	01875	19
1738	ENSMUSGcDchs1	233651	-01389931	021751751	-02675	023	19
1743	ENSMUSGcDcp1b	319618	003558197	007872126	-0385	-001	19
1755	ENSMUSGcDcun1d3	233805	015881731	026497365	-023	03375	19
1756	ENSMUSGcDcun1d4	100737	009072330	005078928	-027	0335	19
1789	ENSMUSGcDdx41	72935	013820146	-00726173-	033	02025	19
1806	ENSMUSGcDek	110052	002950494	008893848	-05825	02775	19
1825	ENSMUSGcDes	13346	-02548464	018320706	-041	-00925	19
1838	ENSMUSGcDgkz	104418	027073320	006083504	-078	01175	19
1859	ENSMUSGcDhx32	101437	-00313678	-00558630-	02675	0095	19
1860	ENSMUSGcDhx35	71715	-00175555	-00436901-	046	-006	19
1862	ENSMUSGcDhx38	64340	015249759	005875100	-02225	0265	19
1879	ENSMUSGcDis3	72662	-00673814	-01030922-	03325	04725	19
1898	ENSMUSGcDmac1	66928	005863038	-01085288	-02725	036	19
1907	ENSMUSGcDnaaf10	103784	000467841	012489899	-02375	00525	19
1915	ENSMUSGcDnajb1	81489	015068175	017663557	-02925	00375	19
1921	ENSMUSGcDnajb5	56323	-00038121	-02365318-	026	01675	19
1928	ENSMUSGcDnajc14	74330	-01440003	007280555	-07825	05975	19
1943	ENSMUSGcDnajc8	68598	004585948	-01166904-	043	01225	19
1958	ENSMUSGcDnttip1	76233	00452112	000513590	-04625	016	19
1959	ENSMUSGcDnttip2	99480	-02909013	010338003	-022	008	19
1975	ENSMUSGcDok7	231134	-01336236	-00174055-	03975	-0045	19
1983	ENSMUSGcDplf2	19708	018280537	008168864	-03975	03425	19
1988	ENSMUSGcDph7	67228	-00647101	001233796	-03125	03425	19
2017	ENSMUSGcDsty1	213452	012218808	003907604	-033	04325	19
2029	ENSMUSGcDusp19	68082	002792433	-01429694	-045	016	19
2038	ENSMUSGcDvl2	13543	-00028511	019818623	-05375	04075	19
2042	ENSMUSGcDync1i1	13426	008763212	-01644973	-025	03675	19
2047	ENSMUSGcDync2i1	217935	002820037	005045311	-054	044	19
2049	ENSMUSGcDync2i1i	215375	001241999	-01337267	-06575	0295	19
2060	ENSMUSGcEcf3	13557	-00208234	004563818	-04075	02775	19
2065	ENSMUSGcEchl	68177	-01038112	-01405316-	0425	02175	19
2072	ENSMUSGcEchdc2	52430	-00883542	019299171	-0645	032	19
2081	ENSMUSGcEdf1	59022	-00449930	-02133056-	02925	0465	19
2112	ENSMUSGcEgln1	112405	009822140	-00131851-	0335	02975	19
2115	ENSMUSGcEhbp11i	114601	-00882548	-00060959-	02525	01025	19
2124	ENSMUSGcEid2	386655	-00938693	-03026212-	09225	055	19
2159	ENSMUSGcEif4b	75705	194e-05	-00861861	-04225	03775	19
2161	ENSMUSGcEif4e2	26987	009177946	002915936	-0365	04125	19
2163	ENSMUSGcEif4enif1	74203	009905905	008288396	-018	03175	19
2166	ENSMUSGcEif4g3	230861	008380824	-00441357-	05525	03675	19
2167	ENSMUSGcEif4h	22384	015088340	-00374384-	06575	037	19
2173	ENSMUSGcEipr1	380752	007640484	-00138848	-023	02375	19
2213	ENSMUSGcEm1	68519	000737199	-01738014-	054	01075	19
2221	ENSMUSGcEnah	13800	018030705	001543530	-0195	0165	19
2239	ENSMUSGcEnsa	56205	009567825	-0114371	-0425	00975	19
2245	ENSMUSGcEny2	223527	-00400662	003993791	-04725	-00875	19
2258	ENSMUSGcEpha10	230735	-01481031	016385834	-03925	03025	19
2281	ENSMUSGcEral1	57837	00142286	001492648	-0535	03025	19



2289	ENSMUSGcErcc3	13872	023113368	-00003338	-0265	0075	19
2319	ENSMUSGcEtnppl	71760	05942135C	017609641	-0535	0205	19
2323	ENSMUSGcEviSl	213027	00806689C	-00294667	-016	02775	19
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2352	ENSMUSGcF11r	16456	-02056336	041394581	-0355	05275	19
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2439	ENSMUSGcFbn1	14118	-03288104	-02067270	-03575	05	19
2463	ENSMUSGcFbxo7	69754	-02964530	007471929	-02975	0315	19
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2555	ENSMUSGcFndc10	230991	-02838551	006920318	-0285	01825	19
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2571	ENSMUSGcFrowed1	235169	012176811	-00819469	-03875	005	19
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2679	ENSMUSGcGatad2a	234366	-00115954	-00309247	-04225	003	19
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2689	ENSMUSGcGbp4	17472	-01291792	066188289	-06425	0135	19
2691	ENSMUSGcGbp7	229900	-01210473	-00588425	-0305	02675	19
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3320	ENSMUSGcInts15	231868	001241475	001148981	-0455	03125	19
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5548	ENSMUSGCMprrt2	69017 -01863906 006448022-04475	-00725	19
5549	ENSMUSGCMprrt3	210673 -02772155 014886656-06725	004	19
5569	ENSMUSGCMpsmb10	19171 -00840943-01584704-05275	-0005	19
5574	ENSMUSGCMpsmb6	19175 -00363727-02297859-034	0115	19
5575	ENSMUSGCMpsmb7	19177 004331773-01766375-021	029	19
5641	ENSMUSGCMptpdc1	218232 -00862646 011281232-04225	0455	19
5645	ENSMUSGCMptpn12	19248 008729453002881227-02075	03575	19
5652	ENSMUSGCMptpn6	15170 -00771967007056347-03075	016	19



5674	ENSMUSGcPttg1ip	108705	-01356419	011934913	-04225	04	19
5687	ENSMUSGcPwp2	110816	-00818567	-00646821	-0955	05525	19
5693	ENSMUSGcPxn	19303	015653169	-00431125	-02125	02275	19
5694	ENSMUSGcPycard	66824	-00422165	-02495072	-02575	0125	19
5695	ENSMUSGcPycr1	209027	-02284706	-04498123	-061	04575	19
5697	ENSMUSGcPycr3	66194	005531275	-00492486	-0345	01975	19
5719	ENSMUSGcR3hdm2	71750	013226178	000548334	-0385	03825	19
5722	ENSMUSGcRab11flp2	74998	-00414934	003451935	-0265	0095	19
5725	ENSMUSGcRab11flp5	52055	01396802	004255065	-02425	0315	19
5744	ENSMUSGcRab30	75985	-00839946	004106159	-031	0075	19
5793	ENSMUSGcRad23b	19359	010108006	-00673462	-038	00525	19
5810	ENSMUSGcRamac	67148	-00914259	-02842415	-039	0495	19
5828	ENSMUSGcRaggef1	107746	020833993	009883810	-027	0405	19
5848	ENSMUSGcRasgrp1	19419	001797114	002890029	-04575	0275	19
5849	ENSMUSGcRasgrp2	19395	-03623822	-01323126	-0205	04075	19
5868	ENSMUSGcRbmi12	75710	025035626	-00150740	-0295	0305	19
5880	ENSMUSGcRbm3	19652	-02076514	013514807	-02375	01575	19
5886	ENSMUSGcRbm6	19654	021953886	007742902	-01975	0215	19
5887	ENSMUSGcRbm7	67010	-00747390	005506427	-06025	01175	19
5901	ENSMUSGcRcbb2	105670	-00078319	-01234734	-02275	02725	19
5909	ENSMUSGcRcsd1	226594	-00391506	-00392458	-07975	05425	19
5911	ENSMUSGcRdh13	108841	013938551	018628806	-03275	-001	19
5917	ENSMUSGcReep3	28193	-01837914	011358568	-03	0065	19
5918	ENSMUSGcReep5	13476	-02659035	001215506	-0145	02975	19
5924	ENSMUSGcReli2	225392	007602757	006449371	-049	02525	19
5927	ENSMUSGcRenbp	19703	-00092591	-02590580	-05675	02825	19
5929	ENSMUSGcReps2	194590	013580655	-00003261	-0265	00575	19
5943	ENSMUSGcRft1	328370	-03281019	006699315	-06175	04725	19
5950	ENSMUSGcRgl2	19732	035493544	010794598	-033	00575	19
5960	ENSMUSGcRgs3	50780	004353854	009554023	-03175	02125	19
5961	ENSMUSGcRgs4	19736	-01743283	-03250610	-046	0315	19
5968	ENSMUSGcRhbd1	13650	004076719	03344511	-03425	021	19
5969	ENSMUSGcRhbd13	246104	000624853	025750114	-065	0165	19
5982	ENSMUSGcRic1	226089	-00282074	008044734	-0285	02175	19
5985	ENSMUSGcRic8b	237422	-00432446	-00621274	-01625	02875	19
5988	ENSMUSGcRif1	51869	-00043651	021137602	-06025	0315	19
6006	ENSMUSGcRilbp1	19771	008752683	-01725260	-04975	-005	19
6028	ENSMUSGcRnf115	67845	-00067670	005982614	-09425	0325	19
6041	ENSMUSGcRnf170	77733	-01247624	011401601	-02075	00225	19
6043	ENSMUSGcRnf185	193670	-00073244	-01082398	-0335	01025	19
6046	ENSMUSGcRnf213	672511	-02396247	-01717306	-02925	02875	19
6048	ENSMUSGcRnf216	108086	018061083	010816855	-058	02625	19
6055	ENSMUSGcRnf41	67588	011932791	002622940	-07025	019	19
6059	ENSMUSGcRngtt	24018	009791656	004353346	-059	01825	19
6075	ENSMUSGcRpap1	68925	017729741	008003836	-02975	01025	19
6135	ENSMUSGcRprdi1b	70470	008116487	006799810	-03525	0335	19
6136	ENSMUSGcRprdi2	75137	009542667	013947784	-04	0045	19
6176	ENSMUSGcRpusd4	71989	01050991	-00149485	-025	00475	19
6186	ENSMUSGcRrp1	18114	000603601	-01945130	-06525	02	19
6191	ENSMUSGcRsf1	235532	006826476	002763540	-028	0115	19
6200	ENSMUSGcRtf1	76246	009087776	00194955	-09	04525	19
6201	ENSMUSGcRtkn	20166	004001825	-00415175	-0355	0205	19
6212	ENSMUSGcRubcn	1.01E+08	013344241	-00423500	-028	03025	19
6219	ENSMUSGcRusc1	72296	018518285	-00741590	-0335	049	19
6226	ENSMUSGcRxb	20182	006584092	-00145075	-036	0095	19
6247	ENSMUSGcSall2	50524	-00761175	-02124991	-061	02975	19
6261	ENSMUSGcSar1a	20224	001771054	-00827775	-04675	04425	19
6305	ENSMUSGcScn2b	72821	-01848133	014217764	-05525	05625	19
6313	ENSMUSGcScoc	56367	-00160790	-00190114	-04975	02225	19
6327	ENSMUSGcSdc2	15529	-02902767	010313813	-036	-00225	19
6336	ENSMUSGcSdhaf1	68332	-00893744	-02695659	-032	0195	19
6337	ENSMUSGcSdhaf2	66072	005449177	-01459878	-057	001	19
6338	ENSMUSGcSdhaf3	71238	-00649014	-02741779	-0805	0235	19
6368	ENSMUSGcSecisbp2l	70354	-00328474	-00368251	-0305	029	19
6442	ENSMUSGcSf1	22668	002940151	002570343	-04875	0515	19
6456	ENSMUSGcSfswap	231769	014040367	013254524	-01975	0345	19
6464	ENSMUSGcSgce	20392	-03461282	011153316	-0365	013	19
6469	ENSMUSGcSgpp1	81535	-02838900	026442254	-02975	0245	19
6473	ENSMUSGcSgsm3	105835	022390505	-00742792	-02575	028	19
6495	ENSMUSGcSh3pxd2b	268396	-00106534	-00410390	-0235	02575	19
6515	ENSMUSGcShmt2	108037	003039794	-00768183	-0325	00525	19
6542	ENSMUSGcSirt5	68346	-01845979	-03004902	-0275	00675	19
6544	ENSMUSGcSkp2	27401	-02422384	002046403	-0255	044	19
6552	ENSMUSGcSlc12a6	107723	-02177269	007801717	-02675	-003	19
6576	ENSMUSGcSlc1a4	55963	-03421536	012986664	-04325	02325	19
6580	ENSMUSGcSlc20a2	20516	-01779605	-00523455	-0635	007	19
6630	ENSMUSGcSlc29a2	13340	-02979137	015524032	-024	02775	19
6647	ENSMUSGcSlc35a5	74102	-03030747	01705306	-0675	03225	19
6663	ENSMUSGcSlc39a11	69806	-02397927	004257127	-01215	0455	19
6672	ENSMUSGcSlc44a2	68682	-01923074	009530663	-036	05125	19
6673	ENSMUSGcSlc45a1	242773	-02420237	026668485	-0425	0325	19
6674	ENSMUSGcSlc45a4	106068	004342379	028787052	-04325	-00625	19
6676	ENSMUSGcSlc49a4	224132	-01815273	005659091	-04925	04325	19
6685	ENSMUSGcSlc52a2	52710	-01712966	013807702	-016	021	19
6687	ENSMUSGcSlc5a6	330064	-01518629	026730586	-0225	01575	19
6693	ENSMUSGcSlc6a13	14412	006045377	-03118096	-0745	05825	19
6697	ENSMUSGcSlc6a6	21366	-02839675	050644553	-038	0345	19
6710	ENSMUSGcSlc7a6os	66432	-00336099	01417781	-0525	04325	19
6716	ENSMUSGcSlc9a5	277973	-00549098	018432239	-05725	012	19
6717	ENSMUSGcSlc9a6	236794	-03086030	013973470	-02525	0185	19
6718	ENSMUSGcSlc9a7	236727	000389964	004060702	-027	002	19
6722	ENSMUSGcSlco1c1	58807	-01798153	035950980	-031	0065	19
6724	ENSMUSGcSlco3a1	108116	-02339051	044903492	-03025	03125	19
6744	ENSMUSGcSmarca1	93761	014543887	015227757	-03525	023	19
6751	ENSMUSGcSmarcc2	68094	005153952	-01009872	-0305	002	19
6753	ENSMUSGcSmarcd3	66993	003598125	003890612	-03625	03075	19
6754	ENSMUSGcSmarce1	57376	-00121228	-01500647	-04575	01225	19
6773	ENSMUSGcSsmim7	66818	-01009327	-00517786	-0225	039	19
6777	ENSMUSGcSmoc1	64075	-03606049	029399128	-066	00425	19
6833	ENSMUSGcSsx15	69024	-01442944	-01535826	-034	0195	19
6838	ENSMUSGcSsx2	67804	014649367	003655248	-021	014	19
6872	ENSMUSGcSowahc	268301	-00245875	001025149	-0465	001	19
6879	ENSMUSGcSpag7	216873	003441173	-00611809	-03125	02675	19
6884	ENSMUSGcSpast	50850	-00470629	012712393	-01775	02075	19
6894	ENSMUSGcSpecc1l	74392	008274195	-00663231	-028	0085	19
6895	ENSMUSGcSpag	11790	006420333	002248690	-02525	02925	19
6896	ENSMUSGcSpapn	56381	001480624	013002037	-04175	00125	19
6913	ENSMUSGcSppi2b	72118	-01359403	018182333	-02	02975	19
6933	ENSMUSGcSra1	24068	004749859	-01227819	-057	02975	19
6947	ENSMUSGcSrp68	217337	014907784	-00327454	-02275	01675	19
6957	ENSMUSGcSrrm3	58212	022340565	003545349	-03675	0085	19
6958	ENSMUSGcSrrt	83701	023070118	006539567	-02625	013	19
6972	ENSMUSGcSs18l1	269397	012608868	-00124263	-03275	01425	19
7001	ENSMUSGcStam2	56324	-00434496	024012629	-039	-00675	19
7014	ENSMUSGcStau1	20853	000622186	-00115994	-0225	0355	19
7018	ENSMUSGcSteepp1	77644	007623552	-01236400	-0785	0495	19
7089	ENSMUSGcSumo1	22218	013421438	00719831	-032	00975	19
7090	ENSMUSGcSumo2	170930	010963784	-00088442	-01925	02225	19
7097	ENSMUSGcSurf1	20930	-01141995	-00977910	-02375	00975	19
7112	ENSMUSGcSyap1	67043	-00150191	-00006972	-02825	-001	19
7113	ENSMUSGcSybu	319613	005658905	-00810035	-0165	03075	19
7129	ENSMUSGcSynj2	20975	012220734	-00672544	-052	-00575	19
7131	ENSMUSGcSynm	233335	015040102	015670741	-03475	03325	19
7156	ENSMUSGcSzerd1	213491	003454222	-02344645	-0955	02075	19
7159	ENSMUSGcTab2	68652	004964837	006488054	-033	02725	19
7162	ENSMUSGcTacc2	57752	010290943	020715459	-042	008	19



7173	ENSMUSGCTaf6	21343	01731283C	003958879-0305	0035	19	
7175	ENSMUSGCTaf8	63856	006408235	001372747-022	03675	19	
7184	ENSMUSGCTamalin	56149	000502176	-01524763i-0295	04125	19	
7190	ENSMUSGCTank	21353	015264564	006237869-04325	0185	19	
7193	ENSMUSGCTaok3	330177	012659833	-00829328i-02425	0275	19	
7194	ENSMUSGCTapbp	21356	-03187348	015770435-032	01425	19	
7206	ENSMUSGCTax1bp3	76281	009962485	018479871-0485	-002	19	
7210	ENSMUSGCTbcd12	209478	009232068	001997388-03125	0215	19	
7222	ENSMUSGCTbcd30	74694	017746265	-00180020-06325	016	19	
7232	ENSMUSGCTbcb	66411	005466844	-01174612i-023	03525	19	
7249	ENSMUSGCTcea1	21399	001599621	-00490378i-03025	03275	19	
7259	ENSMUSGCTcof1	21453	013979756	-00544596-0865	01575	19	
7262	ENSMUSGCTctn3	67590	000346753	021851013-063	0445	19	
7282	ENSMUSGCTent4b	214627	008617624	018159633-058	02775	19	
7288	ENSMUSGCTesk1	21754	016237468	009171490-04375	007	19	
7292	ENSMUSGCTfam	21780	013231942	009829245-0435	-00125	19	
7323	ENSMUSGCThoc7	66231	006947378	-00723704-0655	0235	19	
7348	ENSMUSGCTimm44	21856	011849043	009718547-01875	01725	19	
7357	ENSMUSGCTjp1	21872	012130725	-00582654i-02125	018	19	
7361	ENSMUSGCTkt	21881	-00760001	-00731535-0285	00525	19	
7368	ENSMUSGCTle5	14797	003755216	-01704806-0665	0305	19	
7369	ENSMUSGCTln1	21894	000933662	-00458178i-02425	02	19	
7371	ENSMUSGCTlnrd1	80889	-00202200	-00214483i-0375	014	19	
7430	ENSMUSGCTmem169	271711	-02550451	010319393-03975	022	19	
7459	ENSMUSGCTmem256	69186	006784885	-01951274-04175	00825	19	
7480	ENSMUSGCTmem67	329795	-01920733	033507222-0305	01125	19	
7497	ENSMUSGCTmsb10	19240	-00484204	-02222894-02475	03025	19	
7498	ENSMUSGCTmsb4x	19241	004061971	-01152625i-0415	00825	19	
7515	ENSMUSGCTnks	21951	-00284522	003397478-0235	01025	19	
7516	ENSMUSGCTnks1bp1	228140	001846468	010932932-022	01975	19	
7522	ENSMUSGCTnrc6b	213988	002983308	003603594-02625	04775	19	
7523	ENSMUSGCTnrc6c	217351	-02174931	-00187048i-044	01325	19	
7528	ENSMUSGCTogaram1	328108	016852667	022402542-0515	-00725	19	
7533	ENSMUSGCTomm20	67952	-01705431	001106970-03975	00375	19	
7554	ENSMUSGCTpd52	21985	-00744274	-00675054i-02225	029	19	
7562	ENSMUSGCTpm1	22003	-00201909	-00798969i-05225	0445	19	
7575	ENSMUSGCTpt1	22070	012334958	-00605469i-0215	0315	19	
7610	ENSMUSGCTrim24	21848	-00793211	-00963932-06	03975	19	
7611	ENSMUSGCTrim25	217069	006511908	-00897868i-03875	02225	19	
7621	ENSMUSGCTrim46	360213	015200884	000671329-035	0175	19	
7630	ENSMUSGCTrip11	109181	009212513	005708964-0225	03725	19	
7634	ENSMUSGCTrit1	66966	006725445	010770605-02175	024	19	
7635	ENSMUSGCTrit1	212528	021323496	009196329-0315	0375	19	
7654	ENSMUSGCTrpm7	58800	-01513667	017139081-02075	001	19	
7658	ENSMUSGCTsc1	64930	000222278	002698098-03925	008	19	
7664	ENSMUSGCTsen34	66078	005563283	-014293115i-03225	02175	19	
7703	ENSMUSGCTsc39b	69863	-00919410	-00355297-023	02	19	
7715	ENSMUSGCTtll7	70892	-00009356	-00430025i-0275	035	19	
7717	ENSMUSGCTtpa	50500	-00303986	-00848306i-04725	-00475	19	
7812	ENSMUSGCTube2r2	67615	007199433	-00342959-02625	0485	19	
7826	ENSMUSGCTub15	66177	-00348013	-02116295i-03175	009	19	
7869	ENSMUSGCTuik2	29869	012717375	002726529-02325	004	19	
7887	ENSMUSGCTunk1	74154	007405308	003335792-04075	045	19	
7890	ENSMUSGCTupf3b	68134	000303091	015965749-02825	005	19	
7903	ENSMUSGCTuqcrq	22272	-00191469	-02902636i-05825	009	19	
7904	ENSMUSGCTurb1	207932	-01366722	012428850-02825	0185	19	
7907	ENSMUSGCTuri1	19777	005868405	-00045902-06375	01125	19	
7933	ENSMUSGCTusp38	74841	006518351	018087457-019	03325	19	
7937	ENSMUSGCTusp45	77593	000106946	009967262-09325	04075	19	
7950	ENSMUSGCTutp14a	72554	023860604	-00295638i-0385	00075	19	
7954	ENSMUSGCTutp3	65961	015649494	006738239-0485	007	19	
7957	ENSMUSGCTutrn	22288	009449982	-00051541-02075	013	19	
7961	ENSMUSGCTvamp1	22317	-00283907	-01630447-028	02925	19	
7973	ENSMUSGCTvasp	22323	-00781697	020841875-03725	036	19	
7997	ENSMUSGCTvkorc1	27973	-02142892	001716925-04975	0575	19	
8034	ENSMUSGCTvps54	245944	002978831	021227179-054	00325	19	
8059	ENSMUSGCTwasf1	83767	-00196443	-00698584i-02225	01275	19	
8079	ENSMUSGCTwdr17	244484	-00238913	000136589-03275	01275	19	
8081	ENSMUSGCTwdr19	213081	-00414239	003089594-0535	-00775	19	
8083	ENSMUSGCTwdr24	268933	010867532	012466760-04875	02375	19	
8132	ENSMUSGCTxab2	67439	005181604	-00176185-02875	04	19	
8136	ENSMUSGCTxkr4	497097	-02893175	035156932-0235	04625	19	
8138	ENSMUSGCTxkr7	228787	-02705874	-03529185i-043	03675	19	
8160	ENSMUSGCTyars1	107271	011374954	-01092104i-035	055	19	
8163	ENSMUSGCTybx3	56449	-00348426	-00837583i-021	0345	19	
8165	ENSMUSGCTyeats4	64050	001041086	-01644495i-019	025	19	
8177	ENSMUSGCTyme111	27377	001713235	023209463-023	01875	19	
8178	ENSMUSGCTyod1	226418	-00306766	-00234386-0295	02025	19	
8195	ENSMUSGCTzbtb11	271377	005929891	006839501-04	00775	19	
8199	ENSMUSGCTzbtb38	245007	-00339959	022463030-0265	00075	19	
8201	ENSMUSGCTzbtb7a	19699	012767474	014015391-038	0135	19	
8210	ENSMUSGCTzc3h3	223642	036403628	017120518-0455	0105	19	
8212	ENSMUSGCTzc3h6	78751	-03532921	-00501867i-021	03375	19	
8216	ENSMUSGCTzcchc17	619605	-00279881	-02108851i-03225	02475	19	
8217	ENSMUSGCTzcchc18	66995	-00089954	-00113728-03475	01375	19	
8223	ENSMUSGCTzdihc18	503610	-02119169	005413714-0395	031	19	
8228	ENSMUSGCTzdihc5	228136	-01265855	038657271-04875	00625	19	
8230	ENSMUSGCTzdihc8	27801	-01833164	014331112-036	01375	19	
8236	ENSMUSGCTzfand2b	68818	-01325271	-01356816i-07575	0215	19	
8242	ENSMUSGCTzfp280d	235469	-00548994	005823622-086	06525	19	
8245	ENSMUSGCTzfp346	26919	020199175	004910245-029	00275	19	
8247	ENSMUSGCTzfp3612	12193	012252321	031422374-03125	0335	19	
8260	ENSMUSGCTzfye16	218441	-00532276	-00268350-051	00075	19	
8261	ENSMUSGCTzfye19	72008	001833772	-00223948i-02025	03025	19	
8268	ENSMUSGCTzhx2	387609	004629852	002355619-04125	03625	19	
8276	ENSMUSGCTzmym2	76007	000130955	006511947-0445	02725	19	
8277	ENSMUSGCTzmym3	56364	020490218	-00789010i-02025	02775	19	
264	ENSMUSGCTaig1	66253	-03558616	01270387817725	515	20	
1544	ENSMUSGCTcript	56724	00330312C	-01129170	04875	388	20
1941	ENSMUSGCTdnajc6	72685	014591898	01716343820125	2645	20	
2632	ENSMUSGCTgabra2	14395	154941682	1703753423405	271	20	
3065	ENSMUSGCThebp1	15199	-00744953	-01800990i-35225	332	20	
4595	ENSMUSGCTnnt	18115	-02264577	-04051466i-44975	59625	20	
7656	ENSMUSGCTrrap	100683	-00104645	01085758025	39875	20	
7963	ENSMUSGCTvamp3	22319	01049856C	00598820700875	4725	20	
8072	ENSMUSGCTwdfy1	69368	-02213996	0786438520135	85	20	
8151	ENSMUSGCTxrc5	22596	-01023073	-02452432i-199	27525	20	



## GSEA MNK1KO

\* GSEA mouse MSigDB canonical pathways: m2.cp.v2023.1.Mm.symbols

Description	setSize	enrichment NES	pvalue	p.adjust	qvalue	rank	leading	ed	core	enrichment
REACTOME_GPCR_LIGAND_BINDING	239	-0.76494	-2.0347	3.10E-20	5.13E-17	4.67E-17	1564	tags=31%	list=10%	signal=28%
REACTOME_CLASS_A_1_RHODOPSIN_LIKE_RECEPTORS	187	-0.75923	-1.99368	4.29E-15	3.56E-12	3.23E-12	1564	tags=29%	list=10%	signal=26%
REACTOME_TRANSPORT_OF_SMALL_MOLECULES	548	-0.61232	-1.67738	3.50E-12	1.93E-09	1.76E-09	3032	tags=40%	list=19%	signal=33%
WP_GPCRS_NONODORANT	172	-0.72862	-1.9067	5.38E-11	2.03E-08	1.85E-08	1575	tags=34%	list=10%	signal=31%
REACTOME_SIGNALING_BY_GPCR	438	-0.62388	-1.6973	6.13E-11	2.03E-08	1.85E-08	1959	tags=24%	list=12%	signal=21%
REACTOME_SLC_MEDIATED_TRANSMEMBRANE_TRANSPORT	138	-0.70571	-1.85293	7.79E-10	2.15E-07	1.96E-07	2537	tags=47%	list=16%	signal=40%
REACTOME_PEPTIDE_LIGAND_BINDING_RECEPTORS	104	-0.74402	-1.88995	5.22E-08	1.24E-05	1.12E-05	1564	tags=26%	list=10%	signal=24%
WP_GPCRS_CLASS_A_RHODOPSINLIKE	104	-0.74213	-1.88515	6.94E-08	1.44E-05	1.31E-05	1553	tags=30%	list=10%	signal=27%
WP_GPCRS_OTHER	48	-0.82258	-1.93327	3.09E-07	5.70E-05	5.18E-05	825	tags=33%	list=5%	signal=32%
REACTOME_G_ALPHA_I_SIGNALLING_EVENTS	181	-0.66758	-1.75088	5.50E-07	9.12E-05	8.29E-05	1837	tags=25%	list=11%	signal=22%
REACTOME_TRANSPORT_OF_INORGANIC_CATIONS_ANIONS_AND_AMINO_ACIDS	90	-0.73091	-1.83497	1.35E-06	0.000204	0.000185	2299	tags=46%	list=14%	signal=39%
WP_SPINAL_CORD_INJURY	84	-0.72846	-1.81183	3.90E-06	0.000538	0.000489	2076	tags=38%	list=13%	signal=33%
REACTOME_MAJOR_PATHWAY_OF_RRNA_PROCESSING_IN_THE_NUCLEOLUS_AND	169	0.611335	1.974087	8.52E-06	0.00104	0.000945	4038	tags=64%	list=25%	signal=48%
WP_GPCRS_ODORANT	69	-0.74026	-1.86099	8.78E-06	0.00104	0.000945	2107	tags=35%	list=13%	signal=30%
REACTOME_TRANSLATION	218	0.565882	1.931388	9.85E-06	0.001089	0.00099	4038	tags=54%	list=25%	signal=41%
REACTOME_O_UNLINKED_GLYCOSYLATION	90	-0.69723	-1.75043	2.21E-05	0.002289	0.002081	2473	tags=43%	list=15%	signal=37%
REACTOME_NEURONAL_SYSTEM	308	-0.56796	-1.52715	3.04E-05	0.002963	0.002693	2231	tags=32%	list=14%	signal=28%
REACTOME_GLYCOSAMINOGLYCAN_METABOLISM	117	-0.66003	-1.69134	4.16E-05	0.003828	0.00348	3348	tags=51%	list=21%	signal=44%
REACTOME_G_ALPHA_S_SIGNALLING_EVENTS	97	-0.68916	-1.7366	6.80E-05	0.005934	0.005395	1026	tags=19%	list=6%	signal=17%
REACTOME_ACTIVATION_OF_C3_AND_C5	5	0.967203	1.765886	7.65E-05	0.006342	0.005766	65	tags=40%	list=0%	signal=40%
REACTOME_CARDIAC_CONDUCTION	88	-0.69141	-1.73269	9.93E-05	0.00784	0.007128	2448	tags=43%	list=15%	signal=37%
REACTOME_EUKARYOTIC_TRANSLATION_INITIATION	111	0.656225	2.099887	0.000116	0.00867	0.007882	4226	tags=70%	list=26%	signal=52%
REACTOME_AMINE_LIGAND_BINDING_RECEPTORS	31	-0.79755	-1.78021	0.00012	0.00867	0.007882	1553	tags=55%	list=10%	signal=50%
REACTOME_MUSCLE_CONTRACTION	142	-0.62406	-1.61887	0.00016	0.01108	0.010073	2659	tags=34%	list=16%	signal=28%
REACTOME_INITIAL_TRIGGERING_OF_COMPLEMENT	15	0.856439	2.040583	0.000177	0.011709	0.010645	65	tags=20%	list=0%	signal=20%
REACTOME_POST_TRANSLATIONAL_MODIFICATION_SYNTHESIS_OF_GPI_ANCHORE	61	-0.70377	-1.70639	0.000202	0.012907	0.011735	3674	tags=62%	list=23%	signal=48%
REACTOME_ADHERENS_JUNCTIONS_INTERACTIONS	33	-0.78458	-1.75125	0.000239	0.014142	0.012857	870	tags=52%	list=5%	signal=49%
REACTOME_TRANSPORT_OF_VITAMINS_NUCLEOSIDES_AND_RELATED_MOLECULES	34	-0.77686	-1.73976	0.000237	0.014142	0.012857	2537	tags=59%	list=16%	signal=50%
WP_MONOAMINE_GPCRS	30	-0.799	-1.77352	0.000252	0.014426	0.013116	1553	tags=43%	list=10%	signal=39%
REACTOME_SPHINGOLIPID_METABOLISM	71	-0.69298	-1.69423	0.000267	0.014754	0.013413	2961	tags=54%	list=18%	signal=44%
REACTOME_VOLTAGE_GATED_POTASSIUM_CHANNELS	16	-0.87126	-1.75497	0.000438	0.021363	0.019423	453	tags=44%	list=3%	signal=43%
REACTOME_FORMATION_OF_A_POOL_OF_FREE_40S_SUBUNITS	93	0.75893	-1.7219	0.000376	0.0201	0.018274	1743	tags=46%	list=11%	signal=41%
REACTOME_CLASS_B_2_SECRETIN_FAMILY_RECEPTORS	39	0.653601	2.023701	0.000397	0.020593	0.018722	4226	tags=72%	list=26%	signal=53%
WP_SEROTONIN_AND_ANXIETY	41	-0.75864	-1.74385	0.00042	0.021079	0.019164	1466	tags=29%	list=9%	signal=27%
REACTOME_POTASSIUM_CHANNELS	86	-0.66335	-1.65258	0.000491	0.023272	0.021158	2974	tags=44%	list=18%	signal=36%
REACTOME_NONSENSE_MEDIATED_DECAY_NMD_INDEPENDENT_OF_THE_EXON_J	86	0.652216	2.029911	0.000517	0.0238	0.021638	4038	tags=74%	list=25%	signal=56%
WP_CYTOPLASMIC_RIBOSOMAL_PROTEINS	77	0.686664	2.090461	0.000574	0.025725	0.023388	3722	tags=81%	list=23%	signal=62%
REACTOME_RECEPTOR_TYPE_TYROSINE_PROTEIN_PHOSPHATASES	20	-0.82835	-1.71741	0.00072	0.031434	0.028578	1097	tags=45%	list=7%	signal=42%
BIOCARTA_CLASSIC_PATHWAY	9	0.893306	1.902312	0.000794	0.03156	0.028693	7	tags=11%	list=0%	signal=11%
REACTOME_O_GLYCOSYLATION_OF_TSR_DOMAIN_CONTAINING_PROTEINS	39	-0.74443	-1.69427	0.000799	0.03156	0.028693	1071	tags=36%	list=7%	signal=34%
REACTOME_EPH_EPHRIN_MEDIATED_REPULSION_OF_CELLS	34	-0.75211	-1.68434	0.000756	0.03156	0.028693	2496	tags=47%	list=15%	signal=40%
REACTOME_IMMUNOREGULATORY_INTERACTIONS_BETWEEN_A_LYMPHOID_AND	65	-0.67995	-1.65293	0.000775	0.03156	0.028693	2578	tags=38%	list=16%	signal=32%
REACTOME_LYSOPHOSPHOLIPID_AND_LPA_RECEPTORS	14	-0.86384	-1.71173	0.00096	0.037031	0.033667	698	tags=57%	list=4%	signal=55%
REACTOME_REGULATION_OF_INSULIN_LIKE_GROWTH_FACTOR_IGF_TRANSPORT_I	90	-0.64734	-1.62518	0.000998	0.037601	0.034185	2553	tags=47%	list=16%	signal=40%
REACTOME_CELL_CELL_JUNCTION_ORGANIZATION	39	-0.73706	-1.67749	0.001122	0.040425	0.036752	870	tags=59%	list=5%	signal=56%
REACTOME_CELL_CELL_COMMUNICATION	77	-0.65259	-1.60409	0.001116	0.040425	0.036752	870	tags=40%	list=5%	signal=38%
REACTOME_NONSENSE_MEDIATED_DECAY_NMD	106	0.595153	1.915194	0.001415	0.047889	0.043538	4226	tags=68%	list=26%	signal=50%
REACTOME_HEPARAN_SULFATE_HEPARIN_HS_GAG_METABOLISM	51	-0.71029	-1.67923	0.0014	0.047889	0.043538	2480	tags=53%	list=15%	signal=45%
REACTOME_TACHYKININ_RECEPTORS_BIND_TACHYKININS	4	-0.96919	-1.56686	0.001407	0.047889	0.043538	288	tags=75%	list=2%	signal=74%
REACTOME_ION_CHANNEL_TRANSPORT	139	-0.59815	-1.54776	0.001503	0.049833	0.045306	3032	tags=43%	list=19%	signal=35%
REACTOME_GLUCAAGON_TYPE_LIGAND_RECEPTORS	25	-0.78801	-1.70913	0.001661	0.053993	0.049088	594	tags=20%	list=4%	signal=19%
REACTOME_CHONDROITIN_SULFATE_DERMATAN_SULFATE_METABOLISM	47	-0.70489	-1.64735	0.001713	0.054612	0.04965	2328	tags=51%	list=14%	signal=44%
BIOCARTA_LECTIN_PATHWAY	7	0.89652	1.849818	0.001894	0.057677	0.052437	7	tags=14%	list=0%	signal=14%
BIOCARTA_COMP_PATHWAY	12	0.81206	1.830206	0.001885	0.057677	0.052437	7	tags=8%	list=0%	signal=8%
WP_CALCIIUM_REGULATION_IN_CARDIAC_CELLS	132	-0.58825	-1.52137	0.001913	0.057677	0.052437	1870	tags=22%	list=12%	signal=20%
REACTOME_CELL_JUNCTION_ORGANIZATION	62	-0.66391	-1.60852	0.002709	0.080217	0.072929	2966	tags=45%	list=18%	signal=37%
REACTOME_ION_HOMEOSTASIS	48	-0.68751	-1.61583	0.002792	0.081218	0.073839	2550	tags=46%	list=16%	signal=39%
REACTOME_SUMOYLATION_OF_INTRACELLULAR_RECEPTORS	22	0.706008	1.810097	0.002922	0.082109	0.07465	1887	tags=45%	list=12%	signal=40%
WP_INSULIN_SIGNALING	153	0.503352	1.565741	0.002902	0.082109	0.07465	3059	tags=42%	list=19%	signal=35%
REACTOME_LDL_CLEARANCE	15	-0.82199	-1.63938	0.002973	0.082144	0.074681	1358	tags=40%	list=8%	signal=37%
BIOCARTA_EGFR_SMRT_E_PATHWAY	11	0.850222	1.882286	0.003259	0.088202	0.080189	987	tags=45%	list=6%	signal=43%
REACTOME_REGULATION_OF_LOCALIZATION_OF_FOXP_TRANSCRIPTION_FACTOR	12	0.791175	1.783135	0.003298	0.088202	0.080189	2316	tags=58%	list=14%	signal=50%
REACTOME_PLASMA_LIPOPROTEIN_ASSEMBLY_REMODELING_AND_CLEARANCE	52	-0.67321	-1.59532	0.003553	0.093517	0.085021	1453	tags=35%	list=9%	signal=32%
REACTOME_ACTIVATION_OF_THE_MRNA_UPON_BINDING_OF_THE_CAP_BINDING	58	0.665777	1.985881	0.003751	0.097163	0.088366	4226	tags=71%	list=26%	signal=52%
REACTOME_GLYCOSPHINGOLIPID_METABOLISM	38	-0.7189	-1.63228	0.004112	0.104899	0.095369	2961	tags=58%	list=18%	signal=47%
REACTOME_SEROTONIN_RECEPTORS	10	-0.86864	-1.62339	0.00423	0.106264	0.09661	851	tags=70%	list=5%	signal=66%
REACTOME_SYNTHESIS_SECRETION_AND_DEACYLATION_OF_GHRELIN	9	-0.8721	-1.60531	0.004494	0.111202	0.101099	1350	tags=78%	list=8%	signal=71%
WP_SEROTONIN_AND_ANXIETYRELATED_EVENTS	12	-0.8387	-1.6323	0.004825	0.116101	0.105553	1607	tags=50%	list=10%	signal=45%
REACTOME_PLASMA_LIPOPROTEIN_CLEARANCE	30	-0.72904	-1.61822	0.004832	0.116101	0.105553	1358	tags=23%	list=8%	signal=21%
REACTOME_SYNTHESIS_OF_GLYCOSYLPHOSPHATIDYLINOSITOL_GPI	17	-0.78727	-1.58899	0.00515	0.121974	0.110893	3083	tags=82%	list=19%	signal=67%
REACTOME_REGULATION_OF_SIGNALING_BY_CBL	21	0.699501	1.780813	0.00526	0.122828	0.111669	1338	tags=43%	list=8%	signal=39%
BIOCARTA_AMAN_PATHWAY	9	-0.86802	-1.59779	0.005338	0.122925	0.111757	1091	tags=56%	list=7%	signal=52%
REACTOME_CHONDROITIN_SULFATE_BIOSYNTHESIS	18	-0.79542	-1.63138	0.005682	0.129047	0.117323	2182	tags=61%	list=14%	signal=53%
BIOCARTA_TSP1_PATHWAY	7	-0.90599	-1.57104	0.006008	0.13462	0.122389	49	tags=43%	list=0%	signal=43%
BIOCARTA_CK1_PATHWAY	15	-0.80138	-1.59825	0.006413	0.141774	0.128893	936	tags=27%	list=6%	signal=25%
REACTOME_REGULATION_OF_GENE_EXPRESSION_BY_HYPOXIA_INDUCIBLE_FACTO	6	0.89323	1.747473	0.00667	0.145504	0.132284	996	tags=33%	list=6%	signal=31%
REACTOME_TRANSPORT_OF_NUCLEOTIDE_SUGARS	9	-0.8611	-1.58507	0.00685	0.147489	0.13409	2105	tags=89%	list=13%	signal=77%
WP_SPHINGOLIPID_METABOLISM_OVERVIEW	24	-0.73487	-1.58418	0.007384	0.156961	0.1427	1844	tags=62%	list=11%	signal=55%
REACTOME_INTERLEUKIN_3_INTERLEUKIN_5_AND_GM-CSF_SIGNALING	35	0.608729	1.706878	0.007515	0.15772	0.143391	2556	tags=40%	list=16%	signal=34%
BIOCARTA_STAT3_PATHWAY	8	0.812469	1.70006	0.007742	0.158473	0.144076	3034	tags=100%	list=19%	signal=81%
REACTOME_CLASS_C_3_METABOTROPIC_GLUTAMATE_PHEROMONE_RECEPTORS	11	-0.84645	-1.61821	0.007698	0.158473	0.144076	1558	tags=73%	list=10%	signal=66%
BIOCARTA_PAR1_PATHWAY	17	0.716215	1.785835	0.008237	0.159906	0.145379	4111	tags=82%	list=25%	signal=61%
BIOCARTA_ACH_PATHWAY	12	0.752215	1.695327	0.008054	0.159906	0.145379	2147	tags=50%	list=13%	signal=43%
REACTOME_SYNTHESIS_OF_VERY_LONG_CHAIN_FATTY_ACYL_COAS	18	-0.78232	-1.6045	0.008288	0.159906	0.145379	1720	tags=44%	list=11%	signal=40%
REACTOME_TRANSPORT_OF_BILE_SALTS_AND_ORGANIC_ACIDS_METAL_IONS_AND	58	-0.6476	-1.55347	0.008189	0.159906	0.145379	2447	tags=50%	list=15%	signal=43%
REACTOME_PROTEIN_PROTEIN_INTERACTIONS_AT_SYNAPSES	66	-0.63155	-1.53678	0.008294	0.159906	0.145379	1206	tags=35%	list=7%	signal=32%
REACTOME_CDC42_GTPASE_CYCLE	94	0.56412	1.743605	0.00862	0.164274	0.14935	1324	tags=32%	list=8%	signal=29%
WP_OXIDATIVE_DAMAGE_RESPONSE	37	0.60762	1.714861	0.008946	0.168555	0.153242	579	tags=14%	list=4%	signal=13%
BIOCARTA_RAS_PATHWAY	21	0.678549	1.727474	0.009052	0.168623	0.153303	3662	tags=62%	list=23%	signal=48%
REACTOME_NUCLEOTIDE_LIKE_PURINERGIC_RECEPTORS	13	-0.83761	-1.64489	0.009599	0.169425	0.154033	1742	tags=46%	list=11%	signal=41%
WP_GPCRS_CLASS_C_METABOTROPIC_GLUTAMATE_PHEROMONE	13	-0.83747	-1.64461	0.009599	0.169425	0.154033	1558	tags=62%	list=10%	signal=56%
REACTOME_PHOSPHORYLATION_OF_CD3_AND_TCR_ZETA_CHAINS	11	-0.8392	-1.60435	0.009319	0.169425	0.154033	1132	tags=45%	list=7%	signal=42%
REACTOME_BIOSYNTHESIS_OF_THE_N_GLYCAN_PRECURSOR_DOLICHOL_LIPID_LIN	70	-0.62305	-1.52348	0.009606	0.169425	0.154033	2816	tags=46%	list=17%	signal=38%
REACTOME_G_ALPHA_Q_SIGNALLING_EVENTS	149	-0.5529	-1.4429	0.009222	0.169425	0.154033	2290	tags=26%	list=14%	signal=22%
REACTOME_AMINO_ACID_TRANSPORT_ACROSS_THE_PLASMA_MEMBRANE	29	-0.70761	-1.55822	0.009812	0.169462	0.154066	2161	tags=41%	list=13%	signal=36%



REACTOME_HS_GAG_BIOSYNTHESIS	29	-0.70705	-1.55698	0.009812	0.169462	0.154066	2378	tags=45%	list=15%	signal=38%
REACTOME_INTERLEUKIN_20_FAMILY_SIGNALING	10	0.767281	1.682248	0.010195	0.172491	0.15682	2303	tags=60%	list=14%	signal=51%
REACTOME_GAP_JUNCTION_ASSEMBLY	10	-0.7569	-1.56927	0.010094	0.172491	0.15682	101	tags=25%	list=1%	signal=25%
REACTOME_RECEPTOR_MEDIATED_MITOPHAGY	11	0.803386	1.778595	0.010678	0.178834	0.162587	1831	tags=55%	list=11%	signal=48%
WP_MISMATCH_REPAIR	9	0.809347	1.732521	0.010839	0.179716	0.163389	918	tags=44%	list=6%	signal=42%
REACTOME_O_LINKED_GLYCOSYLATION_OF_MUCINS	41	-0.6737	-1.54859	0.011359	0.18647	0.169529	2223	tags=41%	list=14%	signal=36%
REACTOME_NRH2_NRH3_REGULATE_GENE_EXPRESSION_TO_CONTROL_BILE_AC	6	0.856995	1.676584	0.012073	0.18725	0.170238	1196	tags=67%	list=7%	signal=62%
WP_SPHINGOLIPID_METABOLISM_INTEGRATED_PATHWAY	25	-0.73014	-1.58362	0.012106	0.18725	0.170238	3216	tags=64%	list=20%	signal=51%
REACTOME_OTHER_SEMAPHORIN_INTERACTIONS	14	-0.79557	-1.57645	0.011893	0.18725	0.170238	2001	tags=57%	list=12%	signal=50%
REACTOME_ELASTIC_FIBRE_FORMATION	34	-0.67772	-1.51775	0.011766	0.18725	0.170238	1852	tags=44%	list=11%	signal=39%
WP_DRAVET_SYNDROME_SCN1AA1783V_POINT_MUTATION_MODEL	71	-0.60955	-1.49026	0.011986	0.18725	0.170238	1986	tags=37%	list=12%	signal=32%
REACTOME_EXTRINSIC_PATHWAY_OF_FIBRIN_CLOT_FORMATION	3	-0.9597	-1.46178	0.011787	0.18725	0.170238	292	tags=67%	list=2%	signal=65%
REACTOME_STIMULI_SENSING_CHANNELS	76	-0.59125	-1.44454	0.012197	0.18725	0.170238	2734	tags=34%	list=17%	signal=29%
REACTOME_PEPTIDE_HORMONE_METABOLISM	37	-0.67656	-1.53503	0.012703	0.191462	0.174067	1435	tags=32%	list=9%	signal=30%
REACTOME_CHYLOMICRON_CLEARANCE	4	-0.93333	-1.5089	0.012686	0.191462	0.174067	941	tags=50%	list=6%	signal=47%
REACTOME_CHOLESTEROL_BIOSYNTHESIS	26	-0.72174	-1.56884	0.013431	0.200623	0.182397	2258	tags=50%	list=14%	signal=43%
WP_NUCLEOTIDE_GPCRS	10	-0.83151	-1.55399	0.013742	0.20163	0.183312	1742	tags=40%	list=11%	signal=36%
BIOCARTA_VIP_PATHWAY	24	-0.71101	-1.53274	0.013646	0.20163	0.183312	1481	tags=21%	list=9%	signal=19%
REACTOME_CARNITINE_METABOLISM	13	0.787627	1.827166	0.014382	0.202638	0.184228	1429	tags=46%	list=9%	signal=42%
REACTOME_SIGNALING_BY_ERYTHROPOIETIN	16	0.710269	1.724318	0.014073	0.202638	0.184228	1621	tags=56%	list=10%	signal=51%
BIOCARTA_HCMV_PATHWAY	17	0.690911	1.722741	0.01438	0.202638	0.184228	3034	tags=59%	list=19%	signal=48%
REACTOME_MITOCHONDRIAL_FATTY_ACID_BETA_OXIDATION	34	0.577869	1.614505	0.014057	0.202638	0.184228	3842	tags=44%	list=24%	signal=34%
REACTOME_PEPTIDE_HORMONE_BIOSYNTHESIS	6	-0.89452	-1.52155	0.014422	0.202638	0.184228	354	tags=50%	list=2%	signal=49%
BIOCARTA_RANBP2_PATHWAY	12	0.726863	1.63819	0.014645	0.204046	0.185508	2135	tags=58%	list=13%	signal=51%
REACTOME_SYNTHESIS_OF_KEATONE_BODIES	8	0.767376	1.605705	0.014833	0.204937	0.186319	3499	tags=62%	list=22%	signal=49%
REACTOME_ACTIVATION_OF_MATRIX_METALLOPROTEINASES	15	-0.76975	-1.53518	0.015313	0.20983	0.190767	2295	tags=60%	list=14%	signal=52%
REACTOME_REDUCTION_OF_CITOSOLIC_CA_LEVELS	14	-0.78615	-1.55778	0.01545	0.209966	0.19089	2125	tags=57%	list=13%	signal=50%
REACTOME_BRANCHED_CHAIN_AMINO_ACID_CATABOLISM	20	0.697298	1.789395	0.01565	0.210248	0.191147	3459	tags=75%	list=21%	signal=59%
WP_CHOLESTEROL_METABOLISM_WITH_BLOCH_AND_KANDUTSCHERSUSSELL_PATH	47	-0.64504	-1.50749	0.015724	0.210248	0.191147	2394	tags=43%	list=15%	signal=36%
REACTOME_RESOLUTION_OF_AP_SITES_VIA_THE_MULTIPLE_NUCLEOTIDE_PATCH	24	0.615974	1.602306	0.015866	0.210336	0.191226	2178	tags=42%	list=13%	signal=36%
REACTOME_CD28_CO_STIMULATION	32	0.579826	1.589897	0.015985	0.210336	0.191226	2852	tags=41%	list=18%	signal=34%
REACTOME_PLATELET_CALCIIUM_HOMEOSTASIS	26	-0.71667	-1.55781	0.016176	0.211185	0.191999	2203	tags=50%	list=14%	signal=43%
REACTOME_SYNTHESIS_OF_IP3_AND_IP4_IN_THE_CYTOSOL	27	0.60057	1.586475	0.016903	0.218951	0.199059	3346	tags=56%	list=21%	signal=44%
REACTOME_ACTIVATION_OF_CASPASES_THROUGH_APOPTOSOME_MEDIATED_CLE	6	0.819224	1.602691	0.017571	0.223976	0.203627	218	tags=17%	list=1%	signal=16%
BIOCARTA_ACTININ_PATHWAY	10	-0.82177	-1.53579	0.017566	0.223976	0.203627	8	tags=20%	list=0%	signal=20%
REACTOME_SPHINGOLIPID_DE_NOVO_BIOSYNTHESIS	33	-0.66904	-1.49517	0.017697	0.223976	0.203627	3216	tags=55%	list=20%	signal=44%
REACTOME_FORMATION_OF_THE_EARLY_ELONGATION_COMPLEX	32	0.569013	1.560247	0.018434	0.231538	0.210502	4829	tags=56%	list=30%	signal=40%
WP_OXIDATIVE_PHOSPHORYLATION	32	-0.68647	-1.53772	0.018843	0.234899	0.213558	1486	tags=12%	list=9%	signal=11%
REACTOME_NUCLEOTIDE_BIOSYNTHESIS	12	0.708685	1.59722	0.01927	0.23492	0.213577	3615	tags=75%	list=22%	signal=58%
REACTOME_ORGANIC_ANION_TRANSPORTERS	8	-0.84095	-1.5117	0.019048	0.23492	0.213577	664	tags=62%	list=4%	signal=60%
REACTOME_TRANSMISSION_ACROSS_CHEMICAL_SYNAPSES	194	-0.51541	-1.35397	0.01917	0.23492	0.213577	2142	tags=26%	list=13%	signal=23%
REACTOME_FLT3_SIGNALING	29	0.672053	1.79733	0.019732	0.235365	0.213982	2330	tags=38%	list=14%	signal=33%
REACTOME_ARMED_MEDIATED_ACTIVATION	5	-0.91534	-1.51066	0.0197	0.235365	0.213982	390	tags=40%	list=2%	signal=39%
WP_GPCRS_PEPTIDE	35	-0.65547	-1.47256	0.019727	0.235365	0.213982	3192	tags=46%	list=20%	signal=37%
REACTOME_DOWNSTREAM_SIGNAL_TRANSDUCTION	27	0.594921	1.571552	0.020005	0.23573	0.214313	2559	tags=52%	list=16%	signal=44%
WP_GLYCOGEN_METABOLISM	32	0.562403	1.542123	0.020189	0.23573	0.214313	5321	tags=78%	list=33%	signal=52%
REACTOME_ALTERNATIVE_COMPLEMENT_ACTIVATION	3	0.921909	1.492655	0.020062	0.23573	0.214313	65	tags=33%	list=0%	signal=33%
BIOCARTA_PLIC_PATHWAY	9	0.773599	1.647396	0.020629	0.239181	0.217451	3358	tags=78%	list=21%	signal=62%
REACTOME_TRANSCRIPTIONAL_REGULATION_OF_GRANULPOIESIS	6	0.809519	1.583703	0.020918	0.240852	0.21897	104	tags=33%	list=1%	signal=33%
REACTOME_KEATONE_BODY_METABOLISM	9	0.769591	1.638859	0.0214	0.2447	0.222469	3499	tags=67%	list=22%	signal=52%
REACTOME_VEGFR2_MEDIATED_VASCULAR_PERMEABILITY	29	0.66182	1.769962	0.021657	0.245942	0.223598	2852	tags=48%	list=18%	signal=40%
REACTOME_COMPLEMENT_CASCADE	29	0.654376	1.750053	0.02294	0.258744	0.235236	65	tags=10%	list=0%	signal=10%
WP_TCA_CYCLE	30	0.591846	1.60264	0.023427	0.262451	0.238607	4015	tags=67%	list=25%	signal=50%
REACTOME_HSF1_DEPENDENT_TRANSACTIVATION	23	0.654117	1.690333	0.02525	0.267983	0.243636	2800	tags=48%	list=17%	signal=40%
BIOCARTA_PYK2_PATHWAY	25	0.644178	1.668444	0.025376	0.267983	0.243636	3518	tags=56%	list=22%	signal=44%
REACTOME_RNA_POLYMERASE_II_PRE_TRANSCRIPTION_EVENTS	75	0.538881	1.65649	0.025238	0.267983	0.243636	4829	tags=56%	list=30%	signal=39%
REACTOME_ESTROGEN_DEPENDENT_NUCLEAR_EVENTS_DOWNSTREAM_OF_ESR_1	9	0.763439	1.62576	0.024099	0.267983	0.243636	3034	tags=78%	list=19%	signal=63%
REACTOME_RHO_GTPASE_CYCLE	16	0.663507	1.610793	0.025013	0.267983	0.243636	2403	tags=44%	list=15%	signal=37%
BIOCARTA_VDR_PATHWAY	21	0.629417	1.60239	0.024303	0.267983	0.243636	2327	tags=38%	list=14%	signal=33%
REACTOME_FOXO_MEDIATED_TRANSCRIPTION	21	0.628401	1.599805	0.024858	0.267983	0.243636	4957	tags=67%	list=31%	signal=46%
REACTOME_SODIUM_CALCIIUM_EXCHANGERS	12	-0.79208	-1.54156	0.025133	0.267983	0.243636	1019	tags=58%	list=6%	signal=55%
REACTOME_NEDDYLATION	213	0.402943	1.354303	0.025288	0.267983	0.243636	4459	tags=41%	list=28%	signal=30%
REACTOME_MRNA_SPLICING	199	0.397208	1.317084	0.026045	0.273311	0.24848	4601	tags=41%	list=28%	signal=29%
BIOCARTA_CACAM_PATHWAY	6	0.796982	1.559178	0.026608	0.27746	0.252252	1254	tags=50%	list=8%	signal=46%
REACTOME_ASSOCIATION_OF_TRIC_CCT_WITH_TARGET_PROTEINS_DURING_BIOS	9	0.756947	1.611933	0.027184	0.281693	0.256101	3875	tags=78%	list=24%	signal=59%
REACTOME_VLDLR_INTERNALISATION_AND_DEGRADATION	16	-0.75554	-1.52187	0.027997	0.288318	0.262124	2	tags=12%	list=0%	signal=13%
BIOCARTA_IL7_PATHWAY	15	0.672427	1.602148	0.028486	0.291539	0.265053	2422	tags=53%	list=15%	signal=45%
REACTOME_FORMATION_OF_RNA_POL_II_ELONGATION_COMPLEX	54	0.578696	1.750125	0.029054	0.293731	0.267045	3197	tags=44%	list=20%	signal=36%
REACTOME_METABOLISM_OF_CARBOHYDRATES	247	-0.4921	-1.31016	0.028926	0.293731	0.267045	2507	tags=28%	list=16%	signal=24%
REACTOME_PROCESSIVE_SYNTHESIS_ON_THE_LAGGING_STRAND	14	0.677261	1.585291	0.029785	0.294063	0.267347	452	tags=21%	list=3%	signal=21%
BIOCARTA_PTN_PATHWAY	16	0.648655	1.574738	0.029688	0.294063	0.267347	3202	tags=56%	list=20%	signal=45%
REACTOME_RUNX1_INTERACTS_WITH_CO_FACTORS_WHOSE_PRECISE_EFFECT_ON	35	0.532101	1.492012	0.029672	0.294063	0.267347	3944	tags=37%	list=24%	signal=28%
REACTOME_GLOBAL_GENOME_NUCLEOTIDE_EXCISION_REPAIR_GG_NER	80	0.482483	1.470897	0.029796	0.294063	0.267347	4670	tags=48%	list=29%	signal=34%
WP_EICOSANOID_METABOLISM_VIA_CYTOCHROME_P450_MONOOXYGENASES	4	0.879589	1.521561	0.030652	0.300716	0.273396	108	tags=25%	list=1%	signal=25%
WP_G13_SIGNALING_PATHWAY	38	0.610862	1.748656	0.031045	0.302783	0.275275	1257	tags=32%	list=8%	signal=29%
WP_TRANSLATION_FACTORS	48	0.60348	1.7881	0.032055	0.304068	0.276443	3794	tags=54%	list=24%	signal=42%
REACTOME_ACTIVATION_OF_IRF3_IRF7_MEDIATED_BY_TBK1_IKK_EPSILON	17	0.638418	1.591854	0.031816	0.304068	0.276443	2303	tags=35%	list=14%	signal=30%
BIOCARTA_RAC1_PATHWAY	21	0.616992	1.57076	0.032099	0.304068	0.276443	1999	tags=43%	list=12%	signal=38%
REACTOME_MISMATCH_REPAIR	14	0.669369	1.566818	0.032514	0.304068	0.276443	584	tags=21%	list=4%	signal=21%
REACTOME_P2Y_RECEPTORS	9	-0.815	-1.50021	0.032077	0.304068	0.276443	1316	tags=56%	list=8%	signal=51%
REACTOME_INTERLEUKIN_2_FAMILY_SIGNALING	26	0.559828	1.461128	0.032238	0.304068	0.276443	2293	tags=38%	list=14%	signal=33%
REACTOME_RESPONSE_TO_ELEVATED_PLATELET_CYTOSOLIC_CA2	108	-0.54619	-1.39132	0.032644	0.304068	0.276443	1884	tags=20%	list=12%	signal=18%
REACTOME_RAC1_GTPASE_CYCLE	168	0.420037	1.354256	0.032615	0.304068	0.276443	2092	tags=32%	list=13%	signal=28%
REACTOME_AKT_PHOSPHORYLATES_TARGETS_IN_THE_CYTOSOL	11	0.714765	1.5824	0.03313	0.304339	0.276689	2330	tags=55%	list=14%	signal=47%
REACTOME_FORMATION_OF_INCISION_COMPLEX_IN_GG_NER	42	0.540172	1.557166	0.033016	0.304339	0.276689	2917	tags=40%	list=18%	signal=33%
REACTOME_ESTABLISHMENT_OF_SISTER_CHROMATID_COHESION	10	0.696315	1.526655	0.033224	0.304339	0.276689	3071	tags=60%	list=19%	signal=49%
BIOCARTA_PTDINS_PATHWAY	14	0.662147	1.549914	0.034332	0.312019	0.283672	3960	tags=57%	list=25%	signal=43%
REACTOME_SIALIC_ACID_METABOLISM	31	-0.67009	-1.4957	0.034439	0.312019	0.283672	2816	tags=55%	list=17%	signal=45%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_E2F6	23	0.615783	1.591272	0.035495	0.319843	0.290785	2881	tags=52%	list=18%	signal=43%
REACTOME_GAP_JUNCTION_TRAFFICKING_AND_REGULATION	32	-0.65568	-1.46875	0.036709	0.328991	0.299101	101	tags=16%	list=1%	signal=16%
REACTOME_LGI_ADAM_INTERACTIONS	14	-0.76931	-1.52442	0.037147	0.331128	0.301045	971	tags=50%	list=6%	signal=47%
REACTOME_WNT_LIGAND_BIOGENESIS_AND_TRAFFICKING	20	-0.73142	-1.51646	0.037552	0.332949	0.3027	2400	tags=45%	list=15%	signal=38%
WP_METAPATHWAY_BIOTRANSFORMATION	97	-0.54681	-1.37789	0.038674	0.341072	0.310085	1904	tags=34%	list=12%	signal=30%
REACTOME_RETROGRADE_NEUROTROPHIN_SIGNALING	11	-0.79105	-1.51231	0.040435	0.352853	0.320795	390	tags=18%	list=2%	signal=18%
REACTOME_MAP2K_AND_MAPK_ACTIVATION	35	0.590013	1.427274	0.040332	0.352853	0.320795	3575	tags=43%	list=22%	signal=33%
REACTOME_HSP90_CHAPERONE_CYCLE_FOR_STEROID_HORMONE_RECEPTORS_SH	47	0.565606	1.688386	0.041376	0.355612	0.323304	3184	tags=36%	list=20%	signal=29%
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BIOCARTA_PGC1A_PATHWAY	13	0.706616	1.639234	0.044353	0.355612	0.323304	1254	tags=31%	list=8%	signal=28%
REACTOME_ATTENUATION_PHASE	13	0.698354	1.620066	0.045681	0.355612	0.323304	2686	tags=54%	list=17%	signal=45%
BIOCARTA_EIF_PATHWAY	9	0.723847	1.514447	0.042237	0.355612	0.323304	3637	tags=78%	list=23%	signal=60%
REACTOME_ERYTHROPOIETIN_ACTIVATES_PHOSPHOINOSITIDE_3_KINASE_PI3K	11	0.685007	1.516521	0.045649	0.355612	0.323304	1621	tags=30%	list=10%	signal=57%
REACTOME_SYNTHESIS_OF_PIP5_AT_THE_GOLGI_MEMBRANE	15	0.636135	1.515677	0.046086	0.355612	0.323304	4029	tags=60%	list=25%	signal=45%
REACTOME_REGULATION_OF_LIPID_METABOLISM_BY_PPARGALPHA	16	0.623657	1.514005	0.043246	0.355612	0.323304	3471	tags=50%	list=22%	signal=39%
BIOCARTA_DREAM_PATHWAY	12	-0.77667	-1.51156	0.042169	0.355612	0.323304	1204	tags=33%	list=7%	signal=31%
REACTOME_NA_CL_DEPENDENT_NEUROTRANSMITTER_TRANSPORTERS	13	-0.76673	-1.5057	0.046757	0.355612	0.323304	2078	tags=46%	list=13%	signal=40%
REACTOME_ERBB2_REGULATES_CELL_MOTILITY	11	-0.78669	-1.50398	0.045101	0.355612	0.323304	2241	tags=45%	list=14%	signal=39%
REACTOME_GAP_FILLING_DNA_REPAIR_SYNTHESIS_AND_LIGATION_IN_GG_NER	21	0.588178	1.497404	0.04438	0.355612	0.323304	1801	tags=33%	list=11%	signal=30%
REACTOME_PLASMA_LIPOPROTEIN_REMODELING	18	-0.72899	-1.49513	0.042017	0.355612	0.323304	3529	tags=61%	list=22%	signal=48%
REACTOME_NEGATIVE_REGULATION_OF_FLT3	14	0.63834	1.494189	0.046155	0.355612	0.323304	2069	tags=29%	list=13%	signal=25%
REACTOME_ERBB2_ACTIVATES_PTK6_SIGNALING	8	-0.82266	-1.47882	0.045531	0.355612	0.323304	2241	tags=62%	list=14%	signal=54%
WP_NOVEL_JUNDMP1_PATHWAY	24	-0.68454	-1.47567	0.046605	0.355612	0.323304	142	tags=12%	list=1%	signal=12%
REACTOME_A_TETRASACCHARIDE_LINKER_SEQUENCE_IS_REQUIRED_FOR_GAG_SY	24	-0.68439	-1.47536	0.046605	0.355612	0.323304	2182	tags=50%	list=14%	signal=43%
REACTOME_DERMATAN_SULFATE_BIOSYNTHESIS	10	-0.78818	-1.47303	0.046326	0.355612	0.323304	2328	tags=70%	list=14%	signal=60%
REACTOME_CITRIC_ACID_CYCLE_TCA_CYCLE	22	0.564643	1.447658	0.045967	0.355612	0.323304	4015	tags=64%	list=25%	signal=48%
REACTOME_GLYOXYLATE_METABOLISM_AND_GLYCINE_DEGRADATION	24	0.552169	1.436332	0.043213	0.355612	0.323304	3846	tags=46%	list=24%	signal=35%
WP_DYSREGULATED_MIRNA_TARGETING_IN_INSULINPI3KAKT_SIGNALING	26	0.549803	1.434963	0.042253	0.355612	0.323304	3752	tags=69%	list=23%	signal=53%
REACTOME_INTRA_GOLGI_TRAFFIC	34	0.507553	1.418051	0.043862	0.355612	0.323304	4282	tags=53%	list=27%	signal=39%
REACTOME_SIGNALING_BY_SCF_KIT	35	0.49122	1.377383	0.046537	0.355612	0.323304	2303	tags=34%	list=14%	signal=29%
REACTOME_NEUROTRANSMITTER_RECEPTORS_AND_POSTSYNAPTIC_SIGNAL_TRAN	130	-0.52222	-1.34547	0.044968	0.355612	0.323304	2219	tags=30%	list=14%	signal=26%
REACTOME_S_PHASE	143	0.420012	1.325071	0.045985	0.355612	0.323304	3371	tags=27%	list=21%	signal=22%
REACTOME_ORGANELLE_BIOGENESIS_AND_MAINTENANCE	186	0.388607	1.254201	0.041948	0.355612	0.323304	4219	tags=41%	list=26%	signal=31%
REACTOME_NEUTROPHIL_DEGRANULATION	422	-0.44831	-1.21836	0.045226	0.355612	0.323304	3525	tags=31%	list=22%	signal=25%
BIOCARTA_AKT_PATHWAY	19	0.614544	1.537374	0.047314	0.356575	0.32418	2781	tags=47%	list=17%	signal=39%
REACTOME_CD28_DEPENDENT_PI3K_AKT_SIGNALING	21	0.583494	1.485479	0.047171	0.356575	0.32418	2147	tags=38%	list=13%	signal=33%
WP_GPCRS_SMALL_LIGAND	14	-0.75858	-1.50316	0.047548	0.35672	0.324311	219	tags=21%	list=1%	signal=21%
REACTOME_SULFUR_AMINO_ACID_METABOLISM	22	0.561265	1.438998	0.048251	0.360363	0.327623	3348	tags=41%	list=21%	signal=32%
BIOCARTA_CCR3_PATHWAY	15	0.629522	1.499921	0.048875	0.360367	0.327627	3508	tags=60%	list=22%	signal=47%
REACTOME_TRANSLOCATION_OF_ZAP_70_TO_IMMUNOLOGICAL_SYNAPSE	8	-0.81955	-1.47324	0.048904	0.360367	0.327627	929	tags=50%	list=6%	signal=47%
REACTOME_TRANSFERRIN_ENDOCYTOSIS_AND_RECYCLING	26	-0.67347	-1.46391	0.048493	0.360367	0.327627	2993	tags=50%	list=19%	signal=41%
REACTOME_SYNTHESIS_OF_PIP5_AT_THE_LATE_ENDOSOME_MEMBRANE	10	0.677222	1.484793	0.049183	0.360818	0.328037	3623	tags=60%	list=22%	signal=47%
REACTOME_PHASE_3_RAPID_REPOLARISATION	6	-0.86678	-1.47436	0.05045	0.364186	0.331099	2063	tags=67%	list=13%	signal=58%
REACTOME_P75NTR_REGULATES_AXONOGENESIS	9	-0.79863	-1.47008	0.050489	0.364186	0.331099	2274	tags=67%	list=14%	signal=57%
REACTOME_PYRUVATE_METABOLISM	21	0.572005	1.456229	0.05052	0.364186	0.331099	2536	tags=43%	list=16%	signal=36%
REACTOME_RNA_POLYMERASE_II_PROMOTER_ESCAPE	44	0.494777	1.454055	0.050009	0.364186	0.331099	4814	tags=50%	list=30%	signal=35%
REACTOME_PYRUVATE_METABOLISM_AND_CITRIC_ACID_TCA_CYCLE	45	0.551727	1.632641	0.051722	0.364199	0.331111	3271	tags=49%	list=20%	signal=39%
REACTOME_REGULATION_OF_PYRUVATE_DEHYDROGENASE_PDH_COMPLEX	15	0.625501	1.490341	0.051667	0.364199	0.331111	3109	tags=60%	list=19%	signal=48%
REACTOME_RECOGNITION_OF_DNA_DAMAGE_BY_PCNA_CONTAINING_REPLICATI	29	0.550339	1.471818	0.051266	0.364199	0.331111	1801	tags=31%	list=11%	signal=28%
REACTOME_G_PROTEIN_ACTIVATION	21	-0.70107	-1.47065	0.051771	0.364199	0.331111	594	tags=14%	list=4%	signal=14%
REACTOME_ROS_AND_RNS_PRODUCTION_IN_PHAGOCYTES	30	-0.65537	-1.45469	0.051414	0.364199	0.331111	1231	tags=33%	list=8%	signal=31%
REACTOME_DNA_DOUBLE_STRAND_BREAK_RESPONSE	56	0.467124	1.385873	0.05206	0.364199	0.331111	4097	tags=38%	list=25%	signal=28%
REACTOME_TBC_RABGAPS	34	0.495754	1.385084	0.052023	0.364199	0.331111	3523	tags=50%	list=22%	signal=39%
REACTOME_MAP3K8_TPL2_DEPENDENT_MAPK1_3_ACTIVATION	13	0.672102	1.559167	0.054551	0.367662	0.33426	2798	tags=38%	list=17%	signal=32%
REACTOME_MITOPHAGY	28	0.584136	1.546251	0.054201	0.367662	0.33426	1831	tags=32%	list=11%	signal=29%
BIOCARTA_MTOR_PATHWAY	19	0.608195	1.521493	0.053129	0.367662	0.33426	2781	tags=47%	list=17%	signal=39%
REACTOME_EPHA_MEDIATED_GROWTH_CONE_COLLAPSE	18	-0.71375	-1.46386	0.053221	0.367662	0.33426	711	tags=33%	list=4%	signal=32%
WP_IL3_SIGNALING_PATHWAY	94	0.471385	1.456976	0.053805	0.367662	0.33426	3059	tags=41%	list=19%	signal=34%
REACTOME_ACTIVATION_OF_G_PROTEIN_GATED_POTASSIUM_CHANNELS	26	-0.66578	-1.44721	0.053735	0.367662	0.33426	2116	tags=27%	list=13%	signal=23%
BIOCARTA_EIF4_PATHWAY	21	0.566438	1.442056	0.05387	0.367662	0.33426	3524	tags=52%	list=22%	signal=41%
WP_TGFBETA_SIGNALING_PATHWAY	46	-0.60339	-1.409	0.054414	0.367662	0.33426	1834	tags=20%	list=11%	signal=17%
REACTOME_PROCESSING_OF_CAPPED_INTRON_CONTAINING_PRE_MRNA	264	0.366659	1.26473	0.054495	0.367662	0.33426	4610	tags=40%	list=29%	signal=29%
REACTOME_DUAL_INCISION_IN_GG_NER	40	0.583543	1.685534	0.056658	0.374261	0.340259	2178	tags=38%	list=13%	signal=33%
REACTOME_RHOA_GTPASE_CYCLE	39	0.582561	1.681816	0.056559	0.374261	0.340259	2852	tags=46%	list=18%	signal=38%
REACTOME_VXPP_CARGO_TARGETING_TO_CILIUM	20	0.611536	1.569313	0.055783	0.374261	0.340259	2424	tags=40%	list=15%	signal=34%
REACTOME_GLYCOGEN_SYNTHESIS	5	0.803761	1.467479	0.056645	0.374261	0.340259	2778	tags=80%	list=17%	signal=66%
REACTOME_KEAP1_NFE2L2_PATHWAY	74	0.433372	1.323078	0.056288	0.374261	0.340259	5771	tags=55%	list=36%	signal=36%
REACTOME_RNA_POLYMERASE_II_TRANScribes_SNRNA_GENES	71	0.456277	1.386373	0.057047	0.375335	0.341235	4580	tags=46%	list=28%	signal=33%
REACTOME_GPER1_SIGNALING	26	-0.66079	-1.43635	0.057667	0.377913	0.343579	936	tags=15%	list=6%	signal=15%
REACTOME_SIGNALING_BY_ACTIVIN	13	-0.7498	-1.47245	0.058824	0.379433	0.344961	1236	tags=38%	list=8%	signal=36%
REACTOME_TRANSCRIPTION_COUPLED_NUCLEOTIDE_EXCISION_REPAIR_TC_NER	75	0.476852	1.464224	0.059129	0.379433	0.344961	5703	tags=64%	list=35%	signal=42%
REACTOME_FGFR3B_LIGAND_BINDING_AND_ACTIVATION	6	-0.85888	-1.46093	0.059459	0.379433	0.344961	540	tags=33%	list=3%	signal=32%
WP_CYTOKINES_AND_INFLAMMATORY_RESPONSE	9	-0.78739	-1.44938	0.058632	0.379433	0.344961	1834	tags=44%	list=11%	signal=39%
WP_GENE_REGULATORY_NETWORK_MODELLING_SOMITOGENESIS	8	-0.8055	-1.44798	0.059022	0.379433	0.344961	1454	tags=38%	list=9%	signal=34%
REACTOME_CYP2E1_REACTIONS	3	-0.93048	-1.41727	0.059501	0.379433	0.344961	53	tags=67%	list=0%	signal=66%
WP_ALZHEIMERS_DISEASE	69	-0.56355	-1.37565	0.059158	0.379433	0.344961	2125	tags=29%	list=13%	signal=25%
REACTOME_N_GLYCAN_ANTENNAE_ELONGATION_IN_THE_MEDIAL_TRANS_GOLGI	23	-0.67523	-1.43388	0.060241	0.38268	0.347913	3206	tags=52%	list=20%	signal=42%
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_DNA_REPAIR_GENES	43	0.567929	1.648693	0.06124	0.386071	0.350996	3558	tags=44%	list=22%	signal=35%
REACTOME_INWARDLY_RECTIFYING_K_CHANNELS	31	-0.63985	-1.42821	0.061224	0.386071	0.350996	2116	tags=23%	list=13%	signal=20%
BIOCARTA_TRKA_PATHWAY	12	-0.75666	-1.47262	0.061747	0.38779	0.352559	390	tags=17%	list=2%	signal=16%
REACTOME_RAF_ACTIVATION	34	0.482187	1.347181	0.062223	0.389305	0.353936	5228	tags=71%	list=32%	signal=48%
BIOCARTA_NDKDYNAMIN_PATHWAY	13	0.651106	1.51046	0.062533	0.389776	0.354365	3432	tags=54%	list=21%	signal=42%
REACTOME_SUMOYLATION_OF_TRANSCRIPTION_COFACTORS	8	0.542657	1.553413	0.063127	0.390539	0.355058	3944	tags=45%	list=24%	signal=34%
BIOCARTA_SIP_PATHWAY	6	-0.85428	-1.45309	0.063063	0.390539	0.355058	2258	tags=67%	list=14%	signal=57%
REACTOME_ACETYLCHOLINE_BINDING_AND_DOWNSTREAM_EVENTS	10	-0.7702	-1.43943	0.063898	0.39238	0.356731	2307	tags=60%	list=14%	signal=51%
REACTOME_HIGHLY_CALCIUM_PERMEABLE_POSTSYNAPTIC_NICOTINIC_ACETYLCH	10	-0.7702	-1.43943	0.063898	0.39238	0.356731	2307	tags=60%	list=14%	signal=51%
REACTOME_RNA_POLYMERASE_I_TRANSCRIPTION_TERMINATION	29	0.521791	1.39547	0.064163	0.392557	0.356892	3005	tags=34%	list=19%	signal=28%
WP_IL9_SIGNALING_PATHWAY	22	0.54414	1.395093	0.064844	0.395265	0.359354	3034	tags=59%	list=19%	signal=48%
REACTOME_FOXO_MEDIATED_TRANSCRIPTION_OF_CELL_CYCLE_GENES	8	0.735222	1.538423	0.066015	0.39541	0.359486	2350	tags=50%	list=15%	signal=43%
WP_MAPK_CASCADE	28	0.560476	1.483623	0.068166	0.39541	0.359486	3970	tags=54%	list=25%	signal=40%
REACTOME_JOSEPHIN_DOMAIN_DUBS	11	0.669315	1.481779	0.069638	0.39541	0.359486	3801	tags=64%	list=24%	signal=49%
REACTOME_MRNA_CAPPING	28	0.55615	1.472172	0.06944	0.39541	0.359486	4829	tags=54%	list=30%	signal=38%
REACTOME_RAB_REGULATION_OF_TRAFFICKING	112	0.454553	1.455466	0.066219	0.39541	0.359486	3355	tags=46%	list=21%	signal=37%
BIOCARTA_MAPK_PATHWAY	76	0.471245	1.453207	0.067623	0.39541	0.359486	1253	tags=24%	list=8%	signal=22%
REACTOME_PROLONGED_ERK_ACTIVATION_EVENTS	14	-0.73067	-1.44785	0.066865	0.39541	0.359486	390	tags=14%	list=2%	signal=14%
BIOCARTA_ALTERNATIVE_PATHWAY	5	0.789226	1.440941	0.067538	0.39541	0.359486	1433	tags=40%	list=9%	signal=36%
REACTOME_CELLULAR_RESPONSE_TO_HEAT_STRESS	81	0.473646	1.440661	0.067765	0.39541	0.359486	3092	tags=36%	list=19%	signal=29%
BIOCARTA_ION_PATHWAY	5	0.788995	1.44052	0.067538	0.39541	0.359486	3358	tags=60%	list=21%	signal=48%
REACTOME_SURFACE_TANT_METABOLISM	15	-0.722	-1.43995	0.067747	0.39541	0.359486	3478	tags=67%	list=22%	signal=52%
REACTOME_FRUCTOSE_CATABOLISM	5	0.788246	1.439152	0.067538	0.39541	0.359486	132	tags=20%	list=1%	signal=20%
BIOCARTA_BTG2_PATHWAY	9	-0.78175	-1.439	0.066775	0.39541	0.359486	2026	tags=44%	list=13%	signal=39%
REACTOME_REVERSIBLE_HYDRATION_OF CARBON_DIOXIDE	10	-0.76735	-1.4341	0.06869	0.39541	0.359486	378	tags=30%	list=2%	signal=29%
WP_OXIDATION_BY_CYTOCHROME_P450	23	-0.67054	-1.42391	0.069612	0.39541	0.359486	2595	tags=39%	list=16%	signal=33%
REACTOME_TRANSPORT_OF_ORGANIC_ANIONS	10	-0.76177	-1.42366	0.06869	0.39541	0.359486	2466	tags=60%	list=15%	signal=51%
REACTOME_ACYL_CHAIN_REMODELING_OF_PI	10	-0.76121	-1.42262	0.06869	0.39541	0.359486	2489			



REACTOME_EXTRACELLULAR_MATRIX_ORGANIZATION	207	-0.47787	-1.25987	0.069255	0.39541	0.359486	2321 tags=33%	list=14%	signal=28%
WP_EICOSANOID_METABOLISM_VIA_UPOXYGENASES_LOX	21	0.546203	1.390541	0.070124	0.396813	0.360762	2174 tags=24%	list=13%	signal=21%
REACTOME_POSITIVE_EPIGENETIC_REGULATION_OF_RRNA_EXPRESSION	29	0.510308	1.364759	0.070637	0.398356	0.362165	2459 tags=28%	list=15%	signal=23%
WP_MATRIX_METALLOPROTEINASES	18	-0.69496	-1.42534	0.072829	0.407942	0.37088	2295 tags=50%	list=14%	signal=43%
REACTOME_GABA_B_RECEPTOR_ACTIVATION	39	-0.60652	-1.3804	0.072773	0.407942	0.37088	2116 tags=28%	list=13%	signal=25%
REACTOME_INOSITOL_PHOSPHATE_METABOLISM	46	0.496559	1.464803	0.073094	0.408046	0.370974	2630 tags=37%	list=16%	signal=31%
REACTOME_HSF1_ACTIVATION	8	0.720945	1.50855	0.07335	0.4081	0.371023	2709 tags=62%	list=17%	signal=52%
WP_IL2_SIGNALING_PATHWAY	73	0.469623	1.432695	0.073607	0.408163	0.371081	2835 tags=40%	list=18%	signal=33%
REACTOME_MACROAUTOPHAGY	112	0.452275	1.448172	0.073953	0.408713	0.371581	4710 tags=50%	list=29%	signal=36%
REACTOME_NECTIN_NECL_TRANS_HETERODIMERIZATION	7	-0.81669	-1.4162	0.074468	0.410193	0.372926	2966 tags=100%	list=18%	signal=82%
REACTOME_ESR_MEDIATED_SIGNALING	121	0.383257	1.236663	0.074932	0.411384	0.374009	2437 tags=26%	list=15%	signal=22%
REACTOME_PCNA_DEPENDENT_LONG_PATCH_BASE_EXCISION_REPAIR	20	0.586268	1.504472	0.07597	0.413455	0.375892	1974 tags=35%	list=12%	signal=31%
REACTOME_RECYCLING_OF_EIF2_GDP	8	0.716698	1.499663	0.075795	0.413455	0.375892	3652 tags=75%	list=23%	signal=58%
REACTOME_DNA_STRAND_ELONGATION	23	0.546494	1.41222	0.076058	0.413455	0.375892	1784 tags=22%	list=11%	signal=19%
REACTOME_MITOCHONDRIAL_FATTY_ACID_BETA_OXIDATION_OF_SATURATED_FA	9	0.68674	1.462427	0.07732	0.414556	0.376893	4472 tags=89%	list=28%	signal=64%
REACTOME_TRAFFICKING_AND_PROCESSING_OF_ENDOSOMAL_TLR	11	-0.75285	-1.43927	0.07776	0.414556	0.376893	3337 tags=73%	list=21%	signal=58%
REACTOME_CS_DS_DEGRADATION	13	-0.72796	-1.42957	0.076923	0.414556	0.376893	3535 tags=69%	list=22%	signal=54%
WP_STATIN_PATHWAY	16	-0.70649	-1.42306	0.077713	0.414556	0.376893	3529 tags=62%	list=22%	signal=49%
WP_IL7_SIGNALING_PATHWAY	42	0.488499	1.408207	0.077619	0.414556	0.376893	3960 tags=43%	list=25%	signal=32%
REACTOME_ION_TRANSPORT_BY_P_TYPE_ATPASES	48	-0.58214	-1.36816	0.077201	0.414556	0.376893	2559 tags=46%	list=16%	signal=39%
REACTOME_CELLULAR_RESPONSE_TO_HYPOXIA	68	0.525585	1.576529	0.078395	0.415266	0.377538	2552 tags=21%	list=16%	signal=17%
REACTOME_WNT_MEDIATED_ACTIVATION_OF_DVL	8	0.713397	1.492755	0.07824	0.415266	0.377538	2743 tags=50%	list=17%	signal=42%
REACTOME_DOPAMINE_RECEPTORS	4	-0.87902	-1.42109	0.079096	0.417362	0.379444	22 tags=75%	list=0%	signal=75%
REACTOME_PLATELET_HOMEOSTASIS	71	-0.54368	-1.32922	0.079545	0.417362	0.379444	2203 tags=25%	list=14%	signal=22%
REACTOME_METABOLISM_OF_POLYAMINES	56	0.436718	1.295666	0.079353	0.417362	0.379444	3371 tags=27%	list=21%	signal=21%
REACTOME_TIE2_SIGNALING	17	0.579937	1.490918	0.081169	0.417453	0.379527	2388 tags=35%	list=15%	signal=30%
REACTOME_INTERLEUKIN_RECEPTOR_SHC_SIGNALING	16	0.608445	1.477121	0.08125	0.417453	0.379527	1613 tags=44%	list=10%	signal=39%
REACTOME_REGULATION_OF_RAS_BY_GAPS	65	0.48564	1.464694	0.081037	0.417453	0.379527	2552 tags=25%	list=16%	signal=21%
REACTOME_MISMATCH_REPAIR_MMR_DIRECTED_BY_MSH2_MSH3_MUTSBETA	9	0.683616	1.455774	0.079897	0.417453	0.379527	452 tags=22%	list=3%	signal=22%
BIOCARTA_CPSF_PATHWAY	5	0.779798	1.423729	0.08061	0.417453	0.379527	1521 tags=40%	list=9%	signal=36%
REACTOME_SHC1_EVENTS_IN_ERBB2_SIGNALING	12	-0.72975	-1.42025	0.081325	0.417453	0.379527	2241 tags=50%	list=14%	signal=43%
REACTOME_FORMATION_OF_T2_NER_PRE_INCISION_COMPLEX	52	0.452006	1.381828	0.081228	0.417453	0.379527	5703 tags=60%	list=35%	signal=39%
REACTOME_MIRO_GTPASE_CYCLE	7	0.726762	1.499553	0.082192	0.417689	0.379742	4315 tags=86%	list=27%	signal=63%
REACTOME_NUCLEOTIDE_EXCISION_REPAIR	107	0.461622	1.473225	0.081968	0.417689	0.379742	5703 tags=60%	list=35%	signal=39%
REACTOME_SYNTHESIS_OF_PE	12	0.643223	1.449683	0.08284	0.417689	0.379742	669 tags=25%	list=4%	signal=24%
REACTOME_REGULATION_OF_TP53_ACTIVITY_THROUGH_ASSOCIATION_WITH_CO	12	0.642624	1.448334	0.08284	0.417689	0.379742	2147 tags=50%	list=13%	signal=43%
REACTOME_CHYLOMICRON_ASSEMBLY	6	-0.84072	-1.43003	0.082883	0.417689	0.379742	781 tags=50%	list=5%	signal=48%
REACTOME_PHYSIOLOGICAL_FACTORS	5	-0.86286	-1.42405	0.082873	0.417689	0.379742	308 tags=60%	list=2%	signal=59%
REACTOME_LAGGING_STRAND_SYNTHESIS	19	0.563186	1.408894	0.08447	0.424398	0.385841	4670 tags=58%	list=29%	signal=41%
REACTOME_TETRAHYDROBIOTERIN_BH4_SYNTHESIS_RECYCLING_SALVAGE_AND	9	0.679132	1.446225	0.085052	0.425019	0.386406	2797 tags=56%	list=17%	signal=46%
REACTOME_POLYMERASE_SWITCHING	14	0.61029	1.428529	0.085106	0.425019	0.386406	4670 tags=71%	list=29%	signal=51%
REACTOME_BASE_EXCISION_REPAIR	38	0.507303	1.452206	0.087275	0.432258	0.392987	2289 tags=32%	list=14%	signal=27%
REACTOME_PROCESSING_AND_ACTIVATION_OF_SUMO	10	0.649068	1.423067	0.087766	0.432258	0.392987	3240 tags=60%	list=20%	signal=48%
REACTOME_COHESIN_LOADING_ONTO_CHROMATIN	10	0.64399	1.411934	0.087766	0.432258	0.392987	4533 tags=80%	list=28%	signal=58%
REACTOME_PHASE_2_PLATEAU_PHASE	10	-0.72316	-1.40741	0.087349	0.432258	0.392987	2063 tags=58%	list=13%	signal=51%
REACTOME_REGULATED_PROTEOLYSIS_OF_P75NTR	10	-0.74686	-1.39581	0.087859	0.432258	0.392987	3156 tags=70%	list=20%	signal=56%
REACTOME_PEROXISOMAL_PROTEIN_IMPORT	59	0.495569	1.477803	0.088597	0.432823	0.3935	3582 tags=41%	list=22%	signal=32%
REACTOME_NR1H2_AND_NR1H3_MEDIATED_SIGNALING	12	0.63224	1.424932	0.088757	0.432823	0.3935	1196 tags=33%	list=7%	signal=31%
REACTOME_ACROSOME_REACTION_AND_SPERM_OOCYTE_MEMBRANE_BINDING	3	-0.9115	-1.38837	0.088292	0.432823	0.3935	151 tags=67%	list=1%	signal=66%
REACTOME_SYNTHESIS_OF_BILE_ACIDS_AND_BILE_SALTS_VIA_24_HYDROXYCHOLE	10	-0.74511	-1.39252	0.089457	0.434955	0.395438	921 tags=50%	list=6%	signal=47%
WP_OSTEOCLAST_SIGNALING	11	-0.7396	-1.41394	0.090202	0.437296	0.397567	2150 tags=45%	list=13%	signal=39%
REACTOME_METABOLISM_OF_COFACTORS	14	0.60066	1.405989	0.091185	0.440774	0.400729	3129 tags=50%	list=19%	signal=40%
REACTOME_FCGAMMA_RECEPTOR_FCGR_DEPENDENT_PHAGOCYTOSIS	76	0.445418	1.373563	0.09156	0.441297	0.401205	3034 tags=42%	list=19%	signal=34%
WP_MACROPHAGE_MARKERS	10	-0.74133	-1.38546	0.092652	0.445266	0.404813	1356 tags=70%	list=8%	signal=64%
REACTOME_FERTILIZATION	11	-0.73538	-1.40589	0.093313	0.447145	0.406522	481 tags=27%	list=3%	signal=26%
REACTOME_DNA_REPAIR	278	0.33478	1.181394	0.093646	0.44745	0.406798	4542 tags=37%	list=28%	signal=27%
REACTOME_IRAK1_RECRUITS_IKK_COMPLEX	14	0.598381	1.400655	0.094225	0.447636	0.406968	4227 tags=57%	list=26%	signal=42%
REACTOME_SIGNALING_BY_MST1	4	-0.86615	-1.40028	0.094162	0.447636	0.406968	950 tags=50%	list=6%	signal=47%
REACTOME_PURINE_RIBONUCLEOSIDE_MONOPHOSPHATE_BIOSYNTHESIS	9	0.667263	1.42095	0.095361	0.450699	0.409752	3295 tags=67%	list=20%	signal=53%
REACTOME_MITOCHONDRIAL_TRANSLATION	88	0.428062	1.326664	0.095413	0.450699	0.409752	3899 tags=36%	list=24%	signal=28%
BIOCARTA_CTL_PATHWAY	7	-0.80641	-1.39836	0.095745	0.450979	0.410007	2076 tags=57%	list=13%	signal=50%
REACTOME_REGULATION_OF_FOXP0_TRANSCRIPTIONAL_ACTIVITY_BY_ACETYLATIO	6	0.748742	1.464803	0.096197	0.451826	0.410777	85 tags=17%	list=1%	signal=17%
REACTOME_LIGAND_RECEPTOR_INTERACTIONS	6	-0.82886	-1.40986	0.097297	0.454707	0.413396	2186 tags=67%	list=14%	signal=58%
REACTOME_REGULATION_OF_CHOLESTEROL_BIOSYNTHESIS_BY_SREBP_SREBF	7	-0.80604	-1.39772	0.097518	0.454707	0.413396	2258 tags=57%	list=14%	signal=49%
REACTOME_REGULATION_OF_INNATE_IMMUNE_RESPONSES_TO_CYTOSOLIC_DNA	12	0.61975	1.39678	0.097633	0.454707	0.413396	1379 tags=33%	list=9%	signal=31%
REACTOME_SIGNALING_BY_HIPPO	20	0.560836	1.439208	0.100408	0.458845	0.417159	4490 tags=50%	list=28%	signal=36%
BIOCARTA_EXTRINSIC_PATHWAY	5	-0.85529	-1.41156	0.101289	0.458845	0.417159	1542 tags=40%	list=10%	signal=36%
REACTOME_N_GLYCAN_TRIMMING_AND_ELONGATION_IN_THE_CIS_GOLGI	5	-0.85312	-1.40797	0.101289	0.458845	0.417159	535 tags=60%	list=3%	signal=58%
REACTOME_MUSCARINIC_ACETYLCHOLINE_RECEPTORS	5	-0.85209	-1.40628	0.101289	0.458845	0.417159	1439 tags=80%	list=9%	signal=73%
REACTOME_PHASE_0_RAPID_DEPOLARISATION	8	-0.775	-1.39315	0.10118	0.458845	0.417159	809 tags=62%	list=5%	signal=59%
REACTOME_TRYPTOPHAN_CATABOLISM	8	-0.77499	-1.39312	0.10118	0.458845	0.417159	64 tags=25%	list=0%	signal=25%
REACTOME_CELLULAR_HEXOSE_TRANSPORT	11	-0.72628	-1.38848	0.101089	0.458845	0.417159	2517 tags=55%	list=16%	signal=46%
BIOCARTA_UCALPAIN_PATHWAY	12	-0.71287	-1.38739	0.099398	0.458845	0.417159	121 tags=25%	list=1%	signal=25%
REACTOME_NUCLEOTIDE_SALVAGE	21	0.539701	1.373989	0.100746	0.458845	0.417159	3145 tags=43%	list=19%	signal=35%
REACTOME_INSULIN_RECEPTOR_RECYCLING	24	-0.63539	-1.36972	0.099867	0.458845	0.417159	2917 tags=42%	list=18%	signal=34%
BIOCARTA_HSP27_PATHWAY	12	0.616426	1.389289	0.10355	0.466539	0.424153	3569 tags=42%	list=22%	signal=32%
REACTOME_SIGNALING_TO_RAS	12	0.614186	1.384242	0.10355	0.466539	0.424153	1253 tags=33%	list=8%	signal=31%
REACTOME_HIGHLY_CALCIUM_PERMEABLE_NICOTINIC_ACETYLCHOLINE_RECEPTO	9	-0.75728	-1.39396	0.104235	0.467083	0.424648	2307 tags=56%	list=14%	signal=48%
BIOCARTA_NKT_PATHWAY	14	-0.69503	-1.37723	0.104012	0.467083	0.424648	3453 tags=64%	list=21%	signal=51%
WP_CHOLESTEROL_BIOSYNTHESIS	15	-0.68761	-1.37137	0.104566	0.467304	0.424848	2056 tags=53%	list=13%	signal=47%
BIOCARTA_FOSB_PATHWAY	5	-0.8517	-1.40563	0.104972	0.467861	0.425355	968 tags=60%	list=6%	signal=56%
REACTOME_KERATAN_SULFATE_DEGRADATION	12	-0.70349	-1.36914	0.105422	0.468604	0.42603	3575 tags=58%	list=22%	signal=45%
REACTOME_DUAL_INCISION_IN_TC_NER	63	0.49936	1.501891	0.107425	0.469366	0.426724	2459 tags=32%	list=15%	signal=27%
REACTOME_COBALAMIN_CBL_METABOLISM	7	0.701103	1.446608	0.109589	0.469366	0.426724	3318 tags=71%	list=21%	signal=57%
REACTOME_SIGNALING_BY_NODAL	6	0.732429	1.43289	0.10962	0.469366	0.426724	3034 tags=67%	list=19%	signal=54%
REACTOME_DNA_REPLICATION_INITIATION	8	0.677471	1.417583	0.114914	0.469366	0.426724	4166 tags=62%	list=26%	signal=46%
REACTOME_POLB_DEPENDENT_LONG_PATCH_BASE_EXCISION_REPAIR	8	0.67437	1.411093	0.114914	0.469366	0.426724	2178 tags=50%	list=13%	signal=43%
BIOCARTA_TCYTOTOXIC_PATHWAY	5	-0.84939	-1.40182	0.108656	0.469366	0.426724	2076 tags=80%	list=13%	signal=70%
WP_SYNTHESIS_AND_DEGRADATION_OF_KETONE_BODIES	5	0.763655	1.394255	0.108932	0.469366	0.426724	3499 tags=80%	list=22%	signal=63%
REACTOME_RUNX3_REGULATES_YAP1_MEDIATED_TRANSCRIPTION	5	0.761948	1.391139	0.115468	0.469366	0.426724	1198 tags=60%	list=7%	signal=56%
REACTOME_ERYTHROPOIETIN_ACTIVATES_RAS	9	0.649169	1.382418	0.113402	0.469366	0.426724	1613 tags=44%	list=10%	signal=40%
REACTOME_METABOLISM_OF_ANGIOTENSINOGEN_TO_ANGIOTENSINS	9	-0.74966	-1.37993	0.112378	0.469366	0.426724	1435 tags=56%	list=9%	signal=51%
REACTOME_ASSEMBLY_OF_ACTIVE_LPL_AND_LIPC_LIPASE_COMPLEXES	9	-0.74956	-1.37975	0.112378	0.469366	0.426724	3022 tags=78%	list=19%	signal=63%
REACTOME_GLYCOGEN_METABOLISM	17	0.552662	1.378027	0.113636	0.469366	0.426724	5321 tags=76%	list=33%	signal=51%
REACTOME_ACYLV_CHAIN_REMODELLING_OF_PG	11	-0.72031	-1.37706	0.107309	0.469366	0.426724	2589 tags=55%	list=16%	signal=46%
BIOCARTA_ERBB4_PATHWAY	7	-0.79269	-1.37457	0.109929	0.469366	0.426724	1769 tags=43%	list=11%	signal=38%
REACTOME_MISCELLANEOUS_TRANSPORT_AND_BINDING_EVENTS	19	-0.6657	-1.37279	0.107093	0.469366	0.426724	2577 tags=63%	list=16%	signal=53%
REACTOME_THE_ACTIVATION_OF_ARYLSULFATASES	8	-0.76257	-1.3708	0.111298	0.469366	0.426724	3391 tags=75%	list=21%	signal=59%



REACTOME_PI3K_AKT_ACTIVATION	8	-0.76246	-1.37061	0.111298	0.469366	0.426724	390	tags=25%	list=2%	signal=24%
REACTOME_DEGRADATION_OF_CYSINE_AND_HOMOCYSINE	13	0.588925	1.366209	0.109145	0.469366	0.426724	4373	tags=54%	list=27%	signal=39%
REACTOME_GROWTH_HORMONE_RECEPTOR_SIGNALING	10	0.622869	1.365626	0.109043	0.469366	0.426724	3034	tags=60%	list=19%	signal=49%
REACTOME_NEGATIVE_REGULATORS_OF_DDX58_IFI1_SIGNALING	14	0.583286	1.365321	0.115502	0.469366	0.426724	1359	tags=21%	list=8%	signal=20%
BIOCARTA_PITX2_PATHWAY	13	0.587604	1.363145	0.115044	0.469366	0.426724	3960	tags=54%	list=25%	signal=41%
BIOCARTA_ETS_PATHWAY	17	-0.67493	-1.36224	0.113833	0.469366	0.426724	391	tags=24%	list=2%	signal=23%
REACTOME_WNT5A_DEPENDENT_INTERNALIZATION_OF_FZD4	14	0.581463	1.361054	0.115502	0.469366	0.426724	2395	tags=43%	list=15%	signal=37%
REACTOME_PD_1_SIGNALING	10	-0.72795	-1.36046	0.110224	0.469366	0.426724	929	tags=40%	list=6%	signal=38%
WP_SIGNAL_TRANSDUCTION_OF_S1P_RECEPTOR	21	-0.64815	-1.35963	0.107629	0.469366	0.426724	156	tags=14%	list=1%	signal=14%
WP_HYPERTROPHY_MODEL	16	-0.67454	-1.35872	0.11437	0.469366	0.426724	20	tags=12%	list=0%	signal=12%
REACTOME_PHASE_4_RESTING_MEMBRANE_POTENTIAL	14	-0.68554	-1.35843	0.114413	0.469366	0.426724	3276	tags=64%	list=20%	signal=51%
REACTOME_DEADENYLATION_DEPENDENT_MRNA_DECAY	51	0.44558	1.34872	0.10959	0.469366	0.426724	3529	tags=35%	list=22%	signal=28%
BIOCARTA_GH_PATHWAY	25	0.518092	1.341876	0.107438	0.469366	0.426724	3508	tags=44%	list=22%	signal=34%
REACTOME_NOTCH_HLH_TRANSCRIPTION_PATHWAY	22	0.520915	1.335546	0.114504	0.469366	0.426724	1236	tags=32%	list=8%	signal=29%
REACTOME_HATS_ACETYLATE_HISTONES	44	0.448435	1.317865	0.114027	0.469366	0.426724	4498	tags=43%	list=28%	signal=31%
WP_WNT_SIGNALING_PATHWAY_WP403	57	-0.54843	-1.31155	0.113716	0.469366	0.426724	2400	tags=26%	list=15%	signal=22%
WP_ENDOCHONDRAL_OSSIFICATION	55	-0.54462	-1.3045	0.11462	0.469366	0.426724	1994	tags=25%	list=12%	signal=22%
REACTOME_SELECTIVE_AUTOPHAGY	57	0.416417	1.240545	0.107968	0.469366	0.426724	4710	tags=44%	list=29%	signal=31%
REACTOME_DNA_DOUBLE_STRAND_BREAK_REPAIR	139	0.37762	1.198037	0.112236	0.469366	0.426724	3327	tags=29%	list=21%	signal=24%
REACTOME_INTERACTION_BETWEEN_L1_AND_ANKYRINS	9	0.647695	1.379278	0.115979	0.469967	0.42727	2083	tags=44%	list=13%	signal=39%
WP_INFLAMMATORY_RESPONSE_PATHWAY	22	-0.63733	-1.34617	0.116216	0.469967	0.42727	2742	tags=45%	list=17%	signal=38%
BIOCARTA_IFNA_PATHWAY	7	0.689818	1.423323	0.121005	0.470056	0.427351	1448	tags=43%	list=9%	signal=39%
REACTOME_MTOR_SIGNALING	40	0.492323	1.422049	0.121319	0.470056	0.427351	4677	tags=57%	list=29%	signal=41%
REACTOME_SUMO_IS_PROTEOLYTICALLY_PROCESSED	6	0.726795	1.421867	0.120805	0.470056	0.427351	3240	tags=83%	list=20%	signal=67%
WP_EUKARYOTIC_TRANSCRIPTION_INITIATION	40	0.489598	1.41418	0.122807	0.470056	0.427351	5442	tags=55%	list=34%	signal=37%
REACTOME_STING_MEDIATED_INDUCION_OF_HOST_IMMUNE_RESPONSES	6	0.722215	1.412907	0.123043	0.470056	0.427351	1379	tags=67%	list=9%	signal=61%
REACTOME_TRANSPORT_AND_SYNTHESIS_OF_PAPS	6	-0.81303	-1.38294	0.120721	0.470056	0.427351	2105	tags=67%	list=13%	signal=58%
REACTOME_CATION_COUPLED_CHLORIDE_COTRANSPORTERS	5	-0.83652	-1.38059	0.119705	0.470056	0.427351	2153	tags=80%	list=13%	signal=69%
REACTOME_RECYCLING_OF_BILE_ACIDS_AND_SALTS	8	0.659557	1.380097	0.122249	0.470056	0.427351	2918	tags=50%	list=18%	signal=41%
REACTOME_ADRENOCEPTORS	9	-0.74485	-1.37108	0.12215	0.470056	0.427351	3794	tags=89%	list=24%	signal=68%
REACTOME_TRANSPORT_OF_NUCLEOSIDES_AND_FREE_PURINE_AND_PYRIMIDINE	8	-0.75762	-1.36191	0.118044	0.470056	0.427351	2934	tags=50%	list=18%	signal=41%
REACTOME_ATTACHMENT_OF_GPI_ANCHOR_TO_UPAR	7	-0.78422	-1.35988	0.120567	0.470056	0.427351	2298	tags=100%	list=14%	signal=86%
WP_GPCRS_ORPHAN	16	-0.67324	-1.35609	0.118768	0.470056	0.427351	563	tags=56%	list=3%	signal=54%
WP_GLUTATHIONE_AND_ONECARBON_METABOLISM	28	0.511531	1.35406	0.122881	0.470056	0.427351	4139	tags=50%	list=26%	signal=37%
REACTOME_NRF1_SIGNALS_CELL_DEATH_FROM_THE_NUCLEUS	14	-0.68264	-1.35267	0.118871	0.470056	0.427351	2496	tags=57%	list=15%	signal=48%
REACTOME_INTRAFAGELLAR_TRANSPORT	45	0.457001	1.352332	0.119418	0.470056	0.427351	4311	tags=44%	list=27%	signal=33%
REACTOME_BLOOD_GROUP_SYSTEMS_BIOSYNTHESIS	14	-0.67885	-1.34516	0.118871	0.470056	0.427351	3082	tags=50%	list=19%	signal=40%
BIOCARTA_CXCR4_PATHWAY	18	0.543843	1.34444	0.121528	0.470056	0.427351	3508	tags=56%	list=22%	signal=44%
REACTOME_RETROGRADE_TRANSPORT_AT_THE_TRANS_GOLGI_NETWORK	45	0.453997	1.343444	0.122855	0.470056	0.427351	3706	tags=49%	list=23%	signal=38%
REACTOME_DETOKSIFICATION_OF_REACTIVE_OXYGEN_SPECIES	40	-0.59731	-1.32583	0.122108	0.470056	0.427351	2075	tags=20%	list=13%	signal=17%
BIOCARTA_HDAC_PATHWAY	22	0.512951	1.315129	0.122137	0.470056	0.427351	2147	tags=50%	list=13%	signal=43%
REACTOME_COMPLEX_I_BIOGENESIS	50	-0.54938	-1.29661	0.117788	0.470056	0.427351	12	tags=32%	list=0%	signal=32%
REACTOME_NEUROTRANSMITTER_RELEASE_CYCLE	50	-0.54792	-1.29316	0.121394	0.470056	0.427351	855	tags=14%	list=5%	signal=13%
REACTOME_CARGO_TRAFFICKING_TO_THE_PERICILIARY_MEMBRANE	39	0.447392	1.291592	0.121951	0.470056	0.427351	2485	tags=36%	list=15%	signal=30%
REACTOME_MAPK6_MAPK4_SIGNALING	4	0.418984	1.290016	0.122903	0.470056	0.427351	2852	tags=24%	list=18%	signal=20%
REACTOME_ETHANOL_OXIDATION	6	0.718312	1.405271	0.12528	0.471151	0.428346	3792	tags=67%	list=23%	signal=51%
BIOCARTA_BLYMPHOCTE_PATHWAY	7	-0.78001	-1.35259	0.124113	0.471151	0.428346	2076	tags=57%	list=13%	signal=50%
REACTOME_TYPE_I_HEMIDESOMOSE_ASSEMBLY	7	-0.77734	-1.34796	0.125887	0.471151	0.428346	3601	tags=100%	list=22%	signal=78%
WP_GPCRS_CLASS_B_SECRETINLIKE	19	-0.65123	-1.34294	0.125174	0.471151	0.428346	1882	tags=42%	list=12%	signal=37%
REACTOME_CYTOCHROME_C_MEDIATED_APOPTOTIC_RESPONSE	11	0.60158	1.331822	0.125348	0.471151	0.428346	3034	tags=27%	list=19%	signal=22%
WP_MCP2_AND_ASSOCIATED_RETT_SYNDROME	43	-0.56835	-1.31479	0.12561	0.471151	0.428346	1218	tags=28%	list=8%	signal=26%
REACTOME_EPH_EPHRIN_SIGNALING	64	-0.52969	-1.28813	0.125	0.471151	0.428346	2023	tags=25%	list=13%	signal=22%
WP_MICRORNAS_IN_CARDIOMYOCYTE_HYPERTROPHY	41	0.417236	1.270031	0.124239	0.471151	0.428346	2835	tags=36%	list=18%	signal=30%
REACTOME_SUMOYLATION_OF_CHROMATIN_ORGANIZATION_PROTEINS	57	0.403599	1.202359	0.124112	0.471151	0.428346	2035	tags=25%	list=13%	signal=22%
REACTOME_REGULATION_OF_PTEIN_STABILITY_AND_ACTIVITY	67	0.424888	1.267833	0.126292	0.471604	0.428758	3371	tags=28%	list=21%	signal=23%
REACTOME_YAP1_AND_WWTR1_TAZ_STIMULATED_GENE_EXPRESSION	7	0.687507	1.418557	0.127854	0.472393	0.429476	1198	tags=43%	list=7%	signal=40%
REACTOME_APEX1_INDEPENDENT_RESOLUTION_OF_AP_SITES_VIA_THE_SINGLE_N	7	0.686509	1.416497	0.127854	0.472393	0.429476	4891	tags=86%	list=30%	signal=60%
BIOCARTA_THELPER_PATHWAY	6	-0.80499	-1.36925	0.127928	0.472393	0.429476	2076	tags=83%	list=13%	signal=73%
REACTOME_CROSS_PRESENTATION_OF_PARTICULATE_EXOGENOUS_ANTIGENS_PH	7	-0.77665	-1.34675	0.12766	0.472393	0.429476	78	tags=57%	list=0%	signal=57%
REACTOME_RNA_POLYMERASE_III_TRANSCRIPTION	34	0.464057	1.296527	0.127273	0.472393	0.429476	3195	tags=29%	list=20%	signal=24%
REACTOME_DNA_DAMAGE_RECOGNITION_IN_GG_NER	38	0.462416	1.323713	0.129811	0.478281	0.434829	4385	tags=42%	list=27%	signal=31%
REACTOME_SIGNALING_BY_VEGF	99	0.404283	1.260068	0.130491	0.479721	0.436137	2852	tags=39%	list=18%	signal=33%
WP_OMEGA9_FATTY_ACID_SYNTHESIS	13	-0.67399	-1.32358	0.131222	0.48134	0.437609	1233	tags=31%	list=8%	signal=28%
REACTOME_FRUCTOSE_METABOLISM	6	0.710006	1.389021	0.134228	0.481478	0.437735	132	tags=17%	list=1%	signal=17%
REACTOME_RAB_GEF5_EXCHANGE_GTP_FOR_GDP_ON_RABS	86	0.440466	1.370876	0.133376	0.481478	0.437735	3355	tags=47%	list=21%	signal=37%
REACTOME_ANDROGEN_BIOSYNTHESIS	4	-0.84255	-1.36214	0.131827	0.481478	0.437735	1720	tags=75%	list=11%	signal=67%
REACTOME_MISCELLANEOUS_SUBSTRATES	4	-0.8411	-1.35979	0.13371	0.481478	0.437735	1449	tags=50%	list=9%	signal=46%
WP_MIR222_IN_EXERCISEINDUCED_CARDIAC_GROWTH	4	0.78353	1.355393	0.133758	0.481478	0.437735	2439	tags=75%	list=15%	signal=64%
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_ADDITIONAL_CELL_CYCLE_GEN	18	-0.65352	-1.34035	0.134454	0.481478	0.437735	343	tags=17%	list=2%	signal=16%
REACTOME_ACTIVATION_OF_BAD_AND_TRANSLOCATION_TO_MITOCHONDRIA	12	0.586579	1.32202	0.133136	0.481478	0.437735	4268	tags=42%	list=26%	signal=31%
REACTOME_CYTOSOLIC_SENSORS_OF_PATHOGEN_ASSOCIATED_DNA	31	0.482527	1.316826	0.133028	0.481478	0.437735	2445	tags=35%	list=15%	signal=30%
REACTOME_MRNA_DECAY_BY_3_TO_5_EXORIBONUCLEASE	12	0.58402	1.316252	0.133136	0.481478	0.437735	3962	tags=50%	list=25%	signal=38%
REACTOME_METABOLISM_OF_FAT_SOLUBLE_VITAMINS	35	-0.58588	-1.31622	0.132484	0.481478	0.437735	2130	tags=29%	list=13%	signal=25%
REACTOME_RMTS_METHYLATE_HISTONE_ARGININES	39	0.455348	1.314562	0.134211	0.481478	0.437735	5818	tags=54%	list=36%	signal=35%
REACTOME_FORMATION_OF_APOPTOSOME	9	0.633774	1.349634	0.136598	0.483535	0.439606	3034	tags=33%	list=19%	signal=27%
BIOCARTA_REELIN_PATHWAY	7	-0.7727	-1.3399	0.136525	0.483535	0.439606	920	tags=43%	list=6%	signal=40%
REACTOME_POLYMERASE_SWITCHING_ON_THE_C_STRAND_OF_THE_TELOMERE	24	0.512858	1.334076	0.135458	0.483535	0.439606	4670	tags=54%	list=29%	signal=39%
REACTOME_KSRP_KHSRP_BINDS_AND_DESTABILIZES_MRNA	14	0.565724	1.324213	0.136778	0.483535	0.439606	3962	tags=43%	list=25%	signal=32%
WP_APOPTOSIS	73	0.401499	1.224867	0.135914	0.483535	0.439606	2422	tags=23%	list=15%	signal=20%
REACTOME_ASPARAGINE_N_LINKED_GLYCOSYLATION	247	-0.44055	-1.17291	0.136364	0.483535	0.439606	3111	tags=31%	list=19%	signal=26%
REACTOME_TRIGLYCERIDE_CATABOLISM	4	0.780027	1.349332	0.138004	0.486042	0.441884	2383	tags=75%	list=15%	signal=64%
REACTOME_DEGRADATION_OF_DVL	55	0.404963	1.201439	0.138073	0.486042	0.441884	5771	tags=49%	list=36%	signal=32%
REACTOME_G1_S_TRANSITION	103	0.416409	1.325658	0.138557	0.48671	0.442492	2552	tags=22%	list=16%	signal=19%
REACTOME_ARYL_HYDROCARBON_RECEPTOR_SIGNALING	7	0.672246	1.387068	0.139269	0.488179	0.443827	2058	tags=57%	list=13%	signal=50%
REACTOME_MET_RECEPTOR_ACTIVATION	5	-0.82036	-1.35392	0.139963	0.488545	0.44416	2563	tags=80%	list=16%	signal=67%
BIOCARTA_ERK5_PATHWAY	14	-0.66578	-1.31927	0.139673	0.488545	0.44416	8	tags=14%	list=0%	signal=14%
REACTOME_PTK6_REGULATES_RHO_GTPASES_RAS_GTPASE_AND_MAP_KINASES	12	0.576524	1.29936	0.142012	0.493618	0.448772	2556	tags=42%	list=16%	signal=35%
REACTOME_MITOCHONDRIAL_BIOGENESIS	12	0.575564	1.297196	0.142012	0.493618	0.448772	3856	tags=58%	list=24%	signal=44%
REACTOME_NADE_MODULES_DEATH_SIGNALING	6	-0.79369	-1.35003	0.142342	0.493731	0.448875	2558	tags=50%	list=16%	signal=42%
REACTOME_N_GLYCAN_ANTENNAE_ELONGATION	15	-0.65885	-1.314	0.142857	0.4941	0.44921	2198	tags=47%	list=14%	signal=40%
WP_TYPE_II_INTERFERON_SIGNALING_IFNG	27	-0.59848	-1.3025	0.143045	0.4941	0.44921	2714	tags=44%	list=17%	signal=37%
REACTOME_ACTIVATED_NTRK2_SIGNALS_THROUGH_FR52_AND_FR53	5	-0.81782	-1.34972	0.14733	0.4975	0.452302	307	tags=40%	list=2%	signal=39%
REACTOME_ASSEMBLY_AND_CELL_SURFACE_PRESENTATION_OF_NMDA_RECEPTO	5	-0.8174	-1.34902	0.14733	0.4975	0.452302	1860	tags=60%	list=12%	signal=53%
REACTOME_TRANSCRIPTIONAL_ACTIVATION_OF_MITOCHONDRIAL_BIOGENESIS	10	0.602505	1.32098	0.146277	0.4975	0.452302	3856	tags=70%	list=24%	signal=53%
REACTOME_PYRIMIDINE_SALVAGE	10	0.600421	1.316411	0.146277	0.4975	0.452302	3936	tags=60%	list=24%	signal=45%
REACTOME_ACTIVATED_TAK1_MEDIATES_P38_MAPK_ACTIVATION	23	0.505932	1.307401	0.145098	0.4975	0.452302				



WP_P38_MAPK_SIGNALING_PATHWAY	33	0.46247	1.282851	0.145455	0.4975	0.452302	1649	tags=27%	list=10%	signal=25%
REACTOME_RECYCLING_PATHWAY_OF_L1	32	0.467202	1.281079	0.146226	0.4975	0.452302	3034	tags=38%	list=19%	signal=31%
BIOCARTA_P38MAPK_PATHWAY	32	0.466569	1.279343	0.146226	0.4975	0.452302	1628	tags=25%	list=10%	signal=23%
REACTOME_SIGNALING_BY_NTRKS	74	-0.51125	-1.25276	0.145289	0.4975	0.452302	961	tags=9%	list=6%	signal=9%
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_CELL_CYCLE_GENES	35	-0.57504	-1.29186	0.147771	0.497975	0.452734	486	tags=9%	list=3%	signal=8%
REACTOME_NEGATIVE_REGULATION_OF_ACTIVITY_OF_TFAP2_AP_2_FAMILY_TRAI	7	0.666746	1.375719	0.150685	0.504718	0.458864	2758	tags=43%	list=17%	signal=36%
REACTOME_ER_PHAGOSOME_PATHWAY	20	-0.63409	-1.31467	0.150209	0.504718	0.458864	3112	tags=50%	list=19%	signal=40%
REACTOME_MITOTIC_TELOPHASE_CYTOKINESIS	13	0.563453	1.307118	0.150442	0.504718	0.458864	4533	tags=62%	list=28%	signal=44%
REACTOME_GRB2_EVENTS_IN_ERBB2_SIGNALING	9	-0.72234	-1.307118	0.151466	0.506311	0.460312	1767	tags=67%	list=11%	signal=59%
BIOCARTA_CALCINEURIN_PATHWAY	17	0.536318	1.337274	0.152597	0.508512	0.462313	1254	tags=24%	list=8%	signal=22%
REACTOME_ACETYLCHOLINE_NEUROTRANSMITTER_RELEASE_CYCLE	17	-0.64703	-1.30593	0.152738	0.508512	0.462313	272	tags=18%	list=2%	signal=17%
REACTOME_RUNX1_REGULATES_GENES_INVOLVED_IN_MEGAKARYOCYTE_DIFFERE	41	-0.55687	-1.28005	0.153086	0.508652	0.46244	436	tags=12%	list=3%	signal=12%
REACTOME_ROLE_OF_LAT2_NTAL_LAB_ON_CALCIUM_MOBILIZATION	12	0.572192	1.289596	0.153846	0.510154	0.463806	1257	tags=33%	list=8%	signal=31%
REACTOME_FORMYL_PEPTIDE_RECEPTORS_BIND_FORMYL_PEPTIDES_AND_MANY_	5	-0.80883	-1.33489	0.154696	0.510929	0.46451	399	tags=40%	list=2%	signal=39%
BIOCARTA_IL3_PATHWAY	14	-0.65658	-1.30104	0.154532	0.510929	0.46451	49	tags=14%	list=0%	signal=14%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_MECP2	5	-0.80468	-1.32804	0.156538	0.51496	0.468175	1051	tags=40%	list=7%	signal=37%
REACTOME_PLATELET_ACTIVATION_SIGNALING_AND_AGGREGATION	224	-0.44047	-1.16702	0.156413	0.51496	0.468175	1907	tags=18%	list=12%	signal=16%
REACTOME_P38MAPK_EVENTS	7	0.664028	1.370111	0.157534	0.515029	0.468238	1253	tags=43%	list=8%	signal=40%
REACTOME_NONCANONICAL_ACTIVATION_OF_NOTCH3	7	-0.75928	-1.31664	0.157801	0.515029	0.468238	3301	tags=86%	list=20%	signal=68%
REACTOME_RNA_POLYMERASE_I_TRANSCRIPTION	44	0.420385	1.235431	0.157303	0.515029	0.468238	3005	tags=39%	list=19%	signal=32%
WP_KIT_RECEPTOR_SIGNALING_PATHWAY	66	0.412262	1.231014	0.15745	0.515029	0.468238	3821	tags=42%	list=24%	signal=33%
BIOCARTA_IL12_PATHWAY	11	0.589862	1.305881	0.158774	0.517186	0.470199	3492	tags=64%	list=22%	signal=50%
BIOCARTA_FMLP_PATHWAY	29	0.485857	1.299368	0.159483	0.51792	0.470867	3553	tags=45%	list=22%	signal=35%
REACTOME_RET_SIGNALING	36	0.436639	1.231305	0.159624	0.51792	0.470867	2388	tags=36%	list=15%	signal=31%
WP_WNT_SIGNALING_PATHWAY_AND_PLURIPOTENCY	88	-0.48986	-1.2276	0.160398	0.519415	0.472225	1777	tags=12%	list=11%	signal=11%
REACTOME_NGF_STIMULATED_TRANSCRIPTION	6	-0.77851	-1.32421	0.162162	0.524103	0.476488	638	tags=50%	list=4%	signal=48%
WP_OSTEOBLAST_SIGNALING	5	-0.7998	-1.31998	0.163904	0.526511	0.478677	3237	tags=100%	list=20%	signal=80%
BIOCARTA_INFLAM_PATHWAY	9	-0.71475	-1.31566	0.164495	0.526511	0.478677	3388	tags=44%	list=21%	signal=35%
REACTOME_PROSTACYCLIN_SIGNALING_THROUGH_PROSTACYCLIN_RECEPTOR	16	-0.64162	-1.2924	0.164223	0.526511	0.478677	594	tags=19%	list=4%	signal=18%
REACTOME_HDMS_DEMETHYLATE_HISTONES	29	0.479891	1.283412	0.163793	0.526511	0.478677	5136	tags=55%	list=32%	signal=38%
REACTOME_RHO_GTPASES_ACTIVATE_PAKS	22	0.495439	1.270231	0.164122	0.526511	0.478677	2852	tags=45%	list=18%	signal=37%
REACTOME_GLYCOPROTEIN_HORMONES	4	-0.82017	-1.32595	0.165725	0.526674	0.478825	2429	tags=50%	list=15%	signal=42%
WP_BLOOD_CLOTTING_CASCADE	10	-0.70246	-1.31282	0.166134	0.526674	0.478825	2970	tags=40%	list=18%	signal=33%
REACTOME_RAB_GERANYLGERANYLATION	58	-0.5217	-1.25145	0.165308	0.526674	0.478825	914	tags=10%	list=6%	signal=10%
REACTOME_AUF1_HNRNP_D0_BINDS_AND_DESTABILIZES_MRNA	54	0.407212	1.231514	0.165866	0.526674	0.478825	2552	tags=22%	list=16%	signal=19%
REACTOME_UCH_PROTEINASES	81	0.395499	1.202964	0.165949	0.526674	0.478825	5786	tags=47%	list=36%	signal=30%
REACTOME_SIGNALING_BY_EGFR	42	0.426953	1.230786	0.166667	0.527354	0.479443	2303	tags=38%	list=14%	signal=33%
REACTOME_SYNTHESIS_OF_PYROPHOSPHATES_IN_THE_CYTOSOL	10	0.584131	1.280694	0.167553	0.528143	0.48016	4376	tags=60%	list=27%	signal=44%
REACTOME_SYNTHESIS_OF_PA	29	-0.57864	-1.27421	0.167532	0.528143	0.48016	1329	tags=34%	list=8%	signal=32%
REACTOME_UNLOCKING_OF_NMDA_RECEPTORS_Glutamate_BINDING_AND_Ac	22	-0.60916	-1.28667	0.168919	0.530904	0.48267	1986	tags=32%	list=12%	signal=28%
REACTOME_SIGNALLING_TO_ERKS	26	-0.58732	-1.27666	0.169069	0.530904	0.48267	390	tags=8%	list=2%	signal=8%
BIOCARTA_DEATH_PATHWAY	30	0.470357	1.273664	0.169643	0.531697	0.483392	1531	tags=13%	list=9%	signal=12%
REACTOME_REACTIONS_SPECIFIC_TO_THE_COMPLEX_N_GLYCAN_SYNTHESIS_PAT	7	-0.75297	-1.30569	0.170213	0.532477	0.484101	3098	tags=71%	list=19%	signal=58%
WP_ONECARBON_METABOLISM	26	0.49124	1.282117	0.171548	0.532788	0.484384	4139	tags=54%	list=26%	signal=40%
REACTOME_PECAM1_INTERACTIONS	12	0.564472	1.272196	0.171598	0.532788	0.484384	2303	tags=33%	list=14%	signal=29%
REACTOME_ECM_PROTEOGLYCANS	42	-0.54599	-1.25934	0.171569	0.532788	0.484384	3843	tags=52%	list=24%	signal=40%
WP_ONECARBON_METABOLISM_AND_RELATED_PATHWAYS	46	0.403148	1.189248	0.171429	0.532788	0.484384	2531	tags=26%	list=16%	signal=22%
WP_P53_SIGNALING	62	-0.51466	-1.24692	0.172811	0.535553	0.486897	820	tags=23%	list=5%	signal=22%
BIOCARTA_EPHA4_PATHWAY	8	-0.72122	-1.29647	0.173693	0.536281	0.48756	528	tags=25%	list=3%	signal=24%
BIOCARTA_AT1R_PATHWAY	25	0.486493	1.260035	0.173554	0.536281	0.48756	5404	tags=68%	list=33%	signal=45%
WP_INTEGRINMEDIATED_CELL_ADHESION	96	0.420304	1.309672	0.175669	0.538372	0.48946	1735	tags=22%	list=11%	signal=20%
BIOCARTA_CDMAC_PATHWAY	14	-0.6472	-1.28245	0.175334	0.538372	0.48946	1481	tags=14%	list=9%	signal=13%
REACTOME_RHOBTB3_ATPASE_CYCLE	10	0.580718	1.27321	0.175532	0.538372	0.48946	4954	tags=60%	list=31%	signal=42%
REACTOME_METABOLISM_OF_STEROIDS	82	-0.48618	-1.20741	0.175028	0.538372	0.48946	3316	tags=34%	list=21%	signal=27%
WP_BIOGENIC_AMINE_SYNTHESIS	12	-0.65996	-1.28442	0.177711	0.543625	0.494236	669	tags=50%	list=4%	signal=48%
REACTOME_SYNTHESIS_OF_UDP_N_ACETYL_GLUCOSAMINE	8	0.629101	1.316371	0.178484	0.544151	0.494714	3442	tags=50%	list=21%	signal=39%
REACTOME_PHOSPHATE_BOND_HYDROLYSIS_BY_NTPDASE_PROTEINS	6	-0.76814	-1.30658	0.18018	0.544151	0.494714	2718	tags=67%	list=17%	signal=55%
REACTOME_GAMMA_CARBOXYLATION_HYPUISINE_FORMATION_AND_ARYLSULFAT	31	-0.57213	-1.27705	0.178571	0.544151	0.494714	3638	tags=39%	list=23%	signal=30%
BIOCARTA_CARDIACEGF_PATHWAY	18	-0.62058	-1.27278	0.179272	0.544151	0.494714	2500	tags=28%	list=15%	signal=24%
REACTOME_CROSSLINKING_OF_COLLAGEN_FIBRILS	15	-0.63688	-1.27019	0.179676	0.544151	0.494714	1852	tags=27%	list=11%	signal=24%
REACTOME_GABA_RECEPTOR_ACTIVATION	52	-0.52209	-1.23721	0.179976	0.544151	0.494714	1697	tags=33%	list=11%	signal=29%
WP_TOLLLIKE_RECEPTOR_SIGNALING	32	0.450216	1.234501	0.179245	0.544151	0.494714	1788	tags=31%	list=11%	signal=28%
REACTOME_SYNTHESIS_OF_IP2_IP_AND_INS_IN_THE_CYTOSOL	11	0.573091	1.268751	0.181058	0.545809	0.496222	2630	tags=55%	list=16%	signal=46%
REACTOME_PTEIN_REGULATION	110	0.376472	1.194498	0.181666	0.546646	0.496982	2694	tags=25%	list=17%	signal=21%
BIOCARTA_DSP_PATHWAY	9	-0.70245	-1.29303	0.18241	0.547352	0.497624	961	tags=22%	list=6%	signal=21%
BIOCARTA_TALL1_PATHWAY	13	0.55229	1.281221	0.182891	0.547352	0.497624	987	tags=15%	list=6%	signal=14%
REACTOME_REGULATED_NECROSIS	46	0.396427	1.169422	0.182857	0.547352	0.497624	5490	tags=46%	list=34%	signal=30%
REACTOME_COENZYME_A_BIOSYNTHESIS	8	0.625368	1.308559	0.183374	0.547809	0.49804	3764	tags=50%	list=23%	signal=38%
BIOCARTA_IL10_PATHWAY	9	-0.70149	-1.29127	0.184039	0.548807	0.498947	116	tags=22%	list=1%	signal=22%
REACTOME_LINOLEIC_ACID_LA_METABOLISM	7	-0.74235	-1.28727	0.18617	0.554166	0.503819	1233	tags=57%	list=8%	signal=53%
REACTOME_EUKARYOTIC_TRANSLATION_ELONGATION	5	0.711322	1.298707	0.187364	0.556719	0.50614	3794	tags=80%	list=24%	signal=61%
REACTOME_ADVANCED_GLYCOSYLATION_ENDPRODUCT_RECEPTOR_SIGNALING	5	-0.78577	-1.29683	0.187845	0.557151	0.506533	399	tags=49%	list=2%	signal=39%
REACTOME_RUNX3_REGULATES_CDKN1A_TRANSCRIPTION	5	-0.78247	-1.29138	0.191529	0.559752	0.508897	1834	tags=60%	list=11%	signal=53%
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_GENES_INVOLVED_IN_G2_CEL	7	-0.73938	-1.28214	0.191489	0.559752	0.508897	486	tags=43%	list=3%	signal=42%
REACTOME_TRANSLESION_SYNTHESIS_BY_POLH	18	0.514243	1.271265	0.190972	0.559752	0.508897	3239	tags=50%	list=20%	signal=40%
REACTOME_TNFS_BIND_THEIR_PHYSIOLOGICAL_RECEPTORS	15	0.533275	1.2706	0.19195	0.559752	0.508897	39	tags=7%	list=0%	signal=7%
REACTOME_RAF_INDEPENDENT_MAPK1_3_ACTIVATION	21	-0.60101	-1.26074	0.192098	0.559752	0.508897	1148	tags=19%	list=7%	signal=18%
REACTOME_ADP_SIGNALLING_THROUGH_P2Y_PURINOCEPTOR_12	19	-0.61083	-1.25964	0.190542	0.559752	0.508897	1316	tags=16%	list=8%	signal=15%
REACTOME_ACTIVATION_OF_THE_PRE_REPLICATIVE_COMPLEX	30	0.464787	1.258582	0.191964	0.559752	0.508897	1830	tags=27%	list=11%	signal=24%
WP_GLYCOLYSIS_AND_GLUONEOGENESIS	39	0.417602	1.20559	0.190244	0.559752	0.508897	3746	tags=44%	list=23%	signal=34%
REACTOME_NUCLEAR_EVENTS_MEDIATED_BY_NFE2L2	53	0.384491	1.164994	0.191083	0.559752	0.508897	5771	tags=49%	list=36%	signal=32%
REACTOME_DEGRADATION_OF_AXIN	53	0.382627	1.159345	0.191083	0.559752	0.508897	2552	tags=21%	list=16%	signal=18%
REACTOME_SYNTHESIS_OF_PIP3_AT_THE_ER_MEMBRANE	5	0.705772	1.288575	0.1939	0.56008	0.509196	1851	tags=40%	list=11%	signal=35%
BIOCARTA_STEM_PATHWAY	3	-0.84515	-1.28731	0.193858	0.56008	0.509196	391	tags=67%	list=2%	signal=65%
BIOCARTA_TOB1_PATHWAY	10	-0.68861	-1.28693	0.193291	0.56008	0.509196	3078	tags=60%	list=19%	signal=49%
REACTOME_HS_GAG_DEGRADATION	20	-0.60742	-1.25937	0.193324	0.56008	0.509196	3179	tags=55%	list=20%	signal=44%
WP_SPLICING_FACTOR_NOVA_REGULATED_SYNAPTIC_PROTEINS	41	-0.53712	-1.23466	0.192593	0.56008	0.509196	1710	tags=32%	list=11%	signal=28%
REACTOME_JNK_C_JUN_KINASES_PHOSPHORYLATION_AND_ACTIVATION_MEDIAT	22	0.482763	1.237731	0.194656	0.560313	0.509408	4744	tags=55%	list=29%	signal=39%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_TP53	289	0.30225	1.08021	0.194597	0.560313	0.509408	2486	tags=23%	list=15%	signal=20%
REACTOME_PURINE_SALVAGE	12	0.553785	1.24811	0.195266	0.561094	0.510118	3145	tags=42%	list=19%	signal=34%
BIOCARTA_STRESS_PATHWAY	23	0.483223	1.24872	0.196078	0.561973	0.510917	1235	tags=26%	list=8%	signal=24%
WP_WNT_SIGNALING_IN_KIDNEY_DISEASE	40	-0.53751	-1.22812	0.19625	0.561973	0.510917	2933	tags=28%	list=18%	signal=23%
REACTOME_RHOV_GTPASE_CYCLE	36	0.427397	1.205242	0.197183	0.562702	0.511579	2559	tags=33%	list=16%	signal=28%
WP_IL5_SIGNALING_PATHWAY	66	0.394311	1.177412	0.19685	0.562702	0.511579	3960	tags=44%	list=25%	signal=33%
REACTOME_CREB1_PHOSPHORYLATION_THROUGH_NMDA_RECEPTOR_MEDIATED_	5	0.701258	1.280333	0.200436	0.564215	0.512955	3050	tags=60%	list=19%	signal=49%
REACTOME_SERINE_BIOSYNTHESIS	9	-0.69364	-1.27682	0.198697	0.564215	0.512955	585	tags=33%	list=4%	signal=32%
REACTOME_PI3K_EVENTS_IN_ERBB2_SIGNALING	12	-0.65207	-1.26908							



WP_OMEGA3_OMEGA6_FATTY_ACID_SYNTHESIS	15	-0.6237	-1.2439	0.200295	0.564215	0.512955	1327	tags=33%	list=8%	signal=31%
REACTOME_ACYL_CHAIN_REMODELLING_OF_PE	19	-0.60241	-1.24226	0.200278	0.564215	0.512955	2489	tags=37%	list=15%	signal=31%
REACTOME_VASOPRESSIN_REGULATES_RENAL_WATER_HOMEOSTASIS_VIA_AQUA	28	-0.56586	-1.23772	0.199739	0.564215	0.512955	936	tags=14%	list=6%	signal=13%
REACTOME_PI_METABOLISM	73	0.385622	1.17643	0.2	0.564215	0.512955	3465	tags=49%	list=21%	signal=39%
REACTOME_BETA_OXIDATION_OF_PRISTANOYL_COA	7	0.629827	1.299543	0.200913	0.5646	0.513306	2633	tags=57%	list=16%	signal=48%
REACTOME_ACYL_CHAIN_REMODELLING_OF_PS	15	-0.62311	-1.24273	0.201767	0.565655	0.514265	2489	tags=47%	list=15%	signal=40%
REACTOME_NONHOMOLOGOUS_END_JOINING_NHEJ	48	0.396716	1.17546	0.202312	0.565655	0.514265	4097	tags=31%	list=25%	signal=23%
REACTOME_TELOMERE_MAINTENANCE	48	0.395694	1.172434	0.202312	0.565655	0.514265	4670	tags=44%	list=29%	signal=31%
BIOCARTA_IL22BP_PATHWAY	9	0.597235	1.271825	0.203608	0.568321	0.516688	2293	tags=67%	list=14%	signal=57%
REACTOME_MITOTIC_G1_PHASE_AND_G1_S_TRANSITION	127	0.343658	1.099383	0.204897	0.570956	0.519084	2552	tags=21%	list=16%	signal=18%
REACTOME_NEGATIVE_FEEDBACK_REGULATION_OF_MAPK_PATHWAY	6	0.659066	1.289364	0.205817	0.572557	0.520539	3508	tags=67%	list=22%	signal=52%
REACTOME_MTORC1_MEDIATED_SIGNALING	24	0.467793	1.216849	0.207171	0.57536	0.523088	4677	tags=50%	list=29%	signal=36%
REACTOME_PTK6_REGULATES_RTKS_AND_THEIR_EFFECTORS_AKT1_AND_DOK1	8	0.609132	1.274586	0.207824	0.575874	0.523555	2147	tags=38%	list=13%	signal=33%
REACTOME_ENDOSOMAL_VACUOLAR_PATHWAY	11	-0.66023	-1.26221	0.208398	0.575874	0.523555	4503	tags=82%	list=28%	signal=59%
BIOCARTA_BIOPEPTIDES_PATHWAY	27	0.47649	1.258703	0.208333	0.575874	0.523555	3508	tags=44%	list=22%	signal=35%
WP_FAS_PATHWAY_AND_STRESS_INDUCED_HSP_REGULATION	34	0.431851	1.206547	0.209091	0.576827	0.524421	4810	tags=50%	list=30%	signal=35%
REACTOME_PROPIONYL_COA_CATABOLISM	5	0.697441	1.273364	0.211329	0.580105	0.527402	4888	tags=100%	list=30%	signal=70%
REACTOME_RUNX3_REGULATES_P14_ARF	5	0.697385	1.273261	0.211329	0.580105	0.527402	57	tags=20%	list=0%	signal=20%
REACTOME_TELOMERE_C_STRAND_LAGGING_STRAND_SYNTHESIS	31	0.446631	1.218865	0.211009	0.580105	0.527402	4670	tags=45%	list=29%	signal=32%
WP_MITOCHONDRIAL_GENE_EXPRESSION	19	0.503394	1.259316	0.212014	0.580873	0.5281	5107	tags=53%	list=32%	signal=36%
BIOCARTA_41BB_PATHWAY	14	0.537145	1.257318	0.212766	0.580873	0.5281	1095	tags=21%	list=7%	signal=20%
REACTOME_NUCLEAR_EVENTS_KINASE_AND_TRANSCRIPTION_FACTOR_ACTIVATIO	27	-0.56984	-1.24018	0.212598	0.580873	0.5281	1894	tags=19%	list=12%	signal=16%
REACTOME_AQUAPORIN_MEDIATED_TRANSPORT	31	-0.55404	-1.23666	0.21301	0.580873	0.5281	936	tags=13%	list=6%	signal=12%
REACTOME_SIGNALING_BY_NTRK1_TRKA	63	-0.49935	-1.21074	0.214039	0.582721	0.52978	961	tags=8%	list=6%	signal=7%
REACTOME_BETA_OXIDATION_OF_DECANOYL_COA_TO_OCTANOYL_COA_COA	6	0.65405	1.279551	0.214765	0.582787	0.52984	4472	tags=83%	list=28%	signal=60%
REACTOME_APOPTOTIC_CLEAVAGE_OF_CELL_ADHESION_PROTEINS	8	0.603626	1.263064	0.215159	0.582787	0.52984	2537	tags=38%	list=16%	signal=32%
REACTOME_THE_NLRP3_INFLAMMASOME	9	-0.68541	-1.26166	0.214984	0.582787	0.52984	2417	tags=44%	list=15%	signal=38%
REACTOME_REELIN_SIGNALING_PATHWAY	5	-0.76226	-1.25802	0.21547	0.582787	0.52984	2653	tags=60%	list=16%	signal=50%
REACTOME_MULTIFUNCTIONAL_ANION_EXCHANGERS	4	-0.74368	-1.26497	0.216216	0.583449	0.530442	2955	tags=67%	list=18%	signal=54%
REACTOME_NETRIN_1_SIGNALING	21	0.479319	1.220267	0.216418	0.583449	0.530442	2559	tags=38%	list=16%	signal=32%
BIOCARTA_MALATEX_PATHWAY	8	0.602147	1.259969	0.217604	0.584531	0.531426	5962	tags=88%	list=37%	signal=55%
REACTOME_SLBP_DEPENDENT_PROCESSING_OF_REPLICATION_DEPENDENT_HISTO	11	0.551212	1.220315	0.21727	0.584531	0.531426	117	tags=9%	list=1%	signal=9%
REACTOME_REGULATION_OF_TNFR1_SIGNALING	47	0.381144	1.137751	0.217877	0.584531	0.531426	2692	tags=26%	list=17%	signal=21%
REACTOME_ZBP1_DAI_MEDIATED_INDUCED_TYPE_I_IFNS	13	0.520343	1.207109	0.218289	0.58469	0.53157	2308	tags=38%	list=14%	signal=33%
WP_EBV_LMP1_SIGNALING	18	0.506305	1.251641	0.21875	0.58498	0.531834	3034	tags=39%	list=19%	signal=32%
REACTOME_ORGANIC_CATION_ANION_ZWITTERION_TRANSPORT	11	-0.65197	-1.24642	0.222395	0.593185	0.539293	4349	tags=45%	list=27%	signal=33%
REACTOME_SENESCENCE_ASSOCIATED_SECRETORY_PHENOTYPE_SASP	40	0.401768	1.160487	0.222772	0.593185	0.539293	3050	tags=30%	list=19%	signal=24%
REACTOME_NRAGE_SIGNALS_DEATH_THROUGH_JNK	51	0.375643	1.137029	0.222892	0.593185	0.539293	1298	tags=25%	list=8%	signal=24%
REACTOME_TRANSPORT_OF_FATTY_ACIDS	4	-0.78618	-1.271	0.224105	0.594362	0.540364	1634	tags=75%	list=10%	signal=67%
BIOCARTA_ARENERF2_PATHWAY	18	-0.60277	-1.23626	0.22409	0.594362	0.540364	721	tags=11%	list=4%	signal=11%
REACTOME_ANTIGEN_PRESENTATION_FOLDING_ASSEMBLY_AND_PEPTIDE_LOADIN	27	-0.56094	-1.2208	0.224409	0.594362	0.540364	3112	tags=52%	list=19%	signal=42%
WP_APOPTOSIS_MODULATION_BY_HSP70	16	0.505878	1.228118	0.225	0.594976	0.540922	1211	tags=19%	list=8%	signal=17%
REACTOME_HIGHLY_SODIUM_PERMEABLE_POSTSYNAPTIC_ACETYLCHOLINE_NICO	4	-0.78537	-1.2697	0.225989	0.595587	0.541477	1747	tags=75%	list=11%	signal=67%
REACTOME_HDL_REMODELING	6	-0.74041	-1.25942	0.227027	0.595587	0.541477	3117	tags=50%	list=19%	signal=40%
BIOCARTA_RECK_PATHWAY	9	-0.68047	-1.25257	0.226384	0.595587	0.541477	1939	tags=78%	list=12%	signal=68%
REACTOME_PHASE_1_ACTIVATION_OF_FAST_NA_CHANNELS	7	-0.71833	-1.24562	0.22695	0.595587	0.541477	2361	tags=57%	list=15%	signal=49%
REACTOME_SIGNALING_BY_NOTCH3	19	-0.59356	-1.22402	0.226704	0.595587	0.541477	2496	tags=53%	list=15%	signal=45%
REACTOME_RIPK1_MEDIATED_REGULATED_NECROSIS	30	0.442208	1.19744	0.227679	0.596352	0.542173	6025	tags=57%	list=37%	signal=36%
BIOCARTA_EICOSANOID_PATHWAY	18	-0.60031	-1.23122	0.229692	0.600677	0.546105	1327	tags=44%	list=8%	signal=41%
BIOCARTA_PELP1_PATHWAY	5	0.686304	1.25303	0.230937	0.601768	0.547096	3628	tags=80%	list=22%	signal=62%
BIOCARTA_RAB_PATHWAY	11	0.547101	1.211214	0.231198	0.601768	0.547096	4701	tags=45%	list=29%	signal=32%
WP_ESC_PLURIPOTENCY_PATHWAYS	104	-0.45428	-1.15396	0.230601	0.601768	0.547096	2894	tags=25%	list=18%	signal=21%
REACTOME_G_BETA_GAMMA_SIGNALING_THROUGH_CDC42	18	-0.59662	-1.22364	0.232493	0.60299	0.548208	594	tags=17%	list=4%	signal=16%
WP_TRIACYLGLYCERIDE_SYNTHESIS	19	-0.5903	-1.2173	0.232267	0.60299	0.548208	1696	tags=37%	list=11%	signal=33%
REACTOME_ENDOSOMAL_SORTING_COMPLEX_REQUIRED_FOR_TRANSPORT_ESCR	29	0.450134	1.203832	0.232759	0.60299	0.548208	4767	tags=55%	list=30%	signal=39%
REACTOME_ORGANIC_CATION_TRANSPORT	7	-0.7149	-1.23967	0.234043	0.605371	0.550372	3686	tags=57%	list=23%	signal=44%
REACTOME_NEUREXINS_AND_NEUROLIGINS	31	-0.54677	-1.22045	0.234694	0.60611	0.551044	1206	tags=32%	list=7%	signal=30%
BIOCARTA_ERYTH_PATHWAY	9	-0.6772	-1.24656	0.236156	0.607632	0.552427	2933	tags=44%	list=18%	signal=36%
BIOCARTA_GSK3_PATHWAY	20	0.476146	1.221878	0.236749	0.607632	0.552427	2781	tags=40%	list=17%	signal=33%
REACTOME_GLYCOGEN_BREAKDOWN_GLYCOGENOLYSIS	13	0.517016	1.199393	0.235988	0.607632	0.552427	5321	tags=77%	list=33%	signal=52%
REACTOME_GLI3_IS_PROCESSED_TO_GLI3R_BY_THE_PROTEASOME	56	0.376981	1.118437	0.236486	0.607632	0.552427	5771	tags=46%	list=36%	signal=30%
WP_GLUCURONIDATION	7	0.596738	1.231268	0.237443	0.60847	0.55319	4127	tags=57%	list=26%	signal=43%
REACTOME_INTERFERON_SIGNALING	54	0.368781	1.151287	0.23871	0.610773	0.555283	2928	tags=35%	list=18%	signal=29%
BIOCARTA_CREB_PATHWAY	20	0.467852	1.200593	0.240283	0.61385	0.558081	3358	tags=55%	list=21%	signal=44%
BIOCARTA_SLRP_PATHWAY	4	-0.77177	-1.2477	0.244821	0.620663	0.564275	2182	tags=75%	list=14%	signal=65%
REACTOME_CHYLOMICRON_REMODELING	4	-0.77052	-1.24568	0.244821	0.620663	0.564275	1453	tags=50%	list=9%	signal=46%
REACTOME_REGULATION_OF_IFNA_IFNB_SIGNALING	8	0.580123	1.213884	0.244499	0.620663	0.564275	2551	tags=50%	list=16%	signal=42%
REACTOME_REGULATION_OF_CYTOSKELETAL_REMODELING_AND_CELL_SPREADIN	8	0.576242	1.205765	0.244499	0.620663	0.564275	2208	tags=38%	list=14%	signal=32%
BIOCARTA_CERAMIDE_PATHWAY	22	0.452782	1.160865	0.244275	0.620663	0.564275	3848	tags=45%	list=24%	signal=35%
REACTOME_SYNTHESIS_OF_ACTIVE_UBIQUITIN_ROLES_OF_E1_AND_E2_ENZYMES	30	0.433714	1.174441	0.25	0.632824	0.575331	4958	tags=50%	list=31%	signal=35%
REACTOME_THYROXINE_BIOSYNTHESIS	5	-0.74958	-1.2371	0.252302	0.636707	0.578862	237	tags=40%	list=1%	signal=39%
REACTOME_TERMINATION_OF_TRANSLATION_DNA_SYNTHESIS	31	0.427709	1.167227	0.252294	0.636707	0.578862	1801	tags=26%	list=11%	signal=23%
BIOCARTA_SUMO_PATHWAY	6	0.631833	1.236089	0.252796	0.636986	0.579115	2474	tags=50%	list=15%	signal=42%
REACTOME_RNA_POLYMERASE_III_TRANSCRIPTION_INITIATION_FROM_TYPE_1_PF	27	0.447998	1.183437	0.254167	0.639466	0.58137	3823	tags=30%	list=24%	signal=23%
REACTOME_CA2_ACTIVATED_K_CHANNELS	6	0.630259	1.233008	0.255034	0.640675	0.582469	98	tags=17%	list=1%	signal=17%
REACTOME_ACTIVATION_OF_NMDA_RECEPTORS_AND_POSTSYNAPTIC_EVENTS	36	-0.52518	-1.18443	0.25602	0.641211	0.582956	1986	tags=25%	list=12%	signal=22%
BIOCARTA_IGF1R_PATHWAY	22	0.449152	1.151557	0.255725	0.641211	0.582956	3584	tags=50%	list=22%	signal=39%
REACTOME_XENOBIOTICS	9	-0.66135	-1.21738	0.257329	0.642547	0.584171	1489	tags=22%	list=9%	signal=20%
REACTOME_MOLECULES_ASSOCIATED_WITH_ELASTIC_FIBRES	28	-0.54278	-1.18723	0.25718	0.642547	0.584171	3313	tags=39%	list=21%	signal=31%
REACTOME_SEPARATION_OF_SISTER_CHROMATIDS	177	0.325119	1.072736	0.258284	0.643963	0.585458	5777	tags=45%	list=36%	signal=29%
REACTOME_UBIQUITIN_MEDIATED_DEGRADATION_OF_PHOSPHORYLATED_CDC25	50	0.364714	1.100645	0.258824	0.644338	0.585799	5771	tags=44%	list=36%	signal=28%
REACTOME_UTILIZATION_OF_KETONE_BODIES	3	0.742808	1.202675	0.259875	0.645987	0.587298	3499	tags=67%	list=22%	signal=52%
REACTOME_SHC1_EVENTS_IN_ERBB4_SIGNALING	9	-0.66031	-1.21546	0.260586	0.646785	0.588023	1767	tags=78%	list=11%	signal=69%
BIOCARTA_MITOCHONDRIA_PATHWAY	19	0.472268	1.18145	0.261484	0.648043	0.589167	3848	tags=21%	list=24%	signal=16%
REACTOME_SODIUM_PROTON_EXCHANGERS	9	-0.65879	-1.21266	0.262215	0.648315	0.589414	2054	tags=44%	list=13%	signal=39%
REACTOME_DCC_MEDIATED_ATTRACTIVE_SIGNALING	9	0.563136	1.19921	0.262887	0.648315	0.589414	2559	tags=44%	list=16%	signal=37%
REACTOME_RAP1_SIGNALING	15	0.946965	1.178677	0.263158	0.648315	0.589414	2118	tags=33%	list=13%	signal=29%
REACTOME_ESTROGEN_DEPENDENT_GENE_EXPRESSION	60	0.375164	1.107076	0.263158	0.648315	0.589414	2359	tags=20%	list=15%	signal=17%
REACTOME_IRS_MEDIATED_SIGNALING	33	0.410527	1.138765	0.263636	0.64853	0.58961	1735	tags=24%	list=11%	signal=22%
REACTOME_CTLA4_INHIBITORY_SIGNALING	20	0.455651	1.169285	0.265018	0.650962	0.591821	4737	tags=60%	list=29%	signal=42%
REACTOME_HEMOSTASIS	436	-0.39863	-1.08418	0.269347	0.660617	0.600599	1907	tags=16%	list=12%	signal=14%
WP_METHYLATION	8	-0.67717	-1.21728	0.271501	0.663936	0.603616	1572	tags=25%	list=10%	signal=23%
WP_PRIMARY_FOCAL_SEGMENTAL_GLOMERULOSCLEROSIS_FSGS	68	-0.47254	-1.15383	0.27138	0.663936	0.603616	2072	tags=18%	list=13%	signal=15%
BIOCARTA_IL17_PATHWAY	3	-0.79035	-1.20383	0.272553	0.664548	0.604173	3388	tags=100%	list=21%	signal=79%
REACTOME_INTEGRIN_CELL_SURFACE_INTERACTIONS	65	-0.47593	-1.15696	0.272441	0.664548	0.604173	2578	tags=31%	list=16%	signal=26%
REACTOME_RHO_GTPASES_ACTIVATE_WASPS_AND_WAVES	32	0.411413	1.128104	0.273585	0.666085	0.60557	3352	tags=41%	list=21%	



REACTOME_MITOCHONDRIAL_PROTEIN_IMPORT	7	0.578268	1.193159	0.276256	0.667898	0.607219	4624	tags=57%	list=29%	signal=41%
REACTOME_PRESYNAPTIC_FUNCTION_OF_KAINATE_RECEPTORS	19	-0.57214	-1.17984	0.275382	0.667898	0.607219	594	tags=16%	list=4%	signal=15%
WP_TYROBP_CAUSAL_NETWORK_IN_MICROGLIA	52	-0.48937	-1.15968	0.27652	0.667898	0.607219	4653	tags=58%	list=29%	signal=41%
REACTOME_PINK1_PRKN_MEDIATED_MITOPHAGY	21	0.455453	1.159506	0.276119	0.667898	0.607219	1831	tags=24%	list=11%	signal=21%
REACTOME_CELL_EXTRACELLULAR_MATRIX_INTERACTIONS	18	0.468558	1.158327	0.277778	0.667898	0.607219	2208	tags=28%	list=14%	signal=24%
REACTOME_IRON_UPTAKE_AND_TRANSPORT	49	-0.48971	-1.15515	0.277844	0.667898	0.607219	2993	tags=37%	list=19%	signal=30%
REACTOME_REGULATION_OF_PLK1_ACTIVITY_AT_G2_M_TRANSITION	84	0.358646	1.106113	0.27619	0.667898	0.607219	3004	tags=30%	list=19%	signal=24%
REACTOME_REGULATION_OF_TP53_ACTIVITY	148	0.343402	1.06963	0.278435	0.668084	0.607387	2363	tags=27%	list=15%	signal=23%
REACTOME_SCF_BETA_TRCP_MEDIATED_DEGRADATION_OF_EMI1	9	0.5534	1.178476	0.280928	0.669311	0.608503	3000	tags=33%	list=19%	signal=27%
REACTOME_DSCAM_INTERACTIONS	9	0.553217	1.178086	0.280928	0.669311	0.608503	1253	tags=33%	list=8%	signal=31%
REACTOME_EPHB_MEDIATED_FORWARD_SIGNALING	36	-0.51545	-1.16248	0.281369	0.669311	0.608503	1347	tags=17%	list=8%	signal=15%
REACTOME_DEADENYLATION_OF_MRNA	25	0.438863	1.13667	0.280992	0.669311	0.608503	3524	tags=36%	list=22%	signal=28%
BIOCARTA_RACCYCD_PATHWAY	25	0.438711	1.136276	0.280992	0.669311	0.608503	3508	tags=44%	list=22%	signal=34%
REACTOME_CHROMATIN_MODIFYING_ENZYMES	155	0.342942	1.070796	0.280513	0.669311	0.608503	4182	tags=42%	list=26%	signal=31%
REACTOME_ROLE_OF_PHOSPHOLIPIDS_IN_PHAGOCYTOSIS	20	0.444033	1.139471	0.282686	0.671479	0.610475	1282	tags=35%	list=8%	signal=32%
BIOCARTA_TFF_PATHWAY	21	0.4505959	1.148065	0.283582	0.672162	0.611095	3034	tags=38%	list=19%	signal=31%
REACTOME_DECTIN_1_MEDIATED_NONCANONICAL_NF_KB_SIGNALING	56	0.36214	1.074406	0.283784	0.672162	0.611095	5771	tags=45%	list=36%	signal=29%
REACTOME_SIGNALING_BY_NOTCH1	18	0.462507	1.143367	0.284722	0.673423	0.612241	2214	tags=39%	list=14%	signal=34%
BIOCARTA_CTPB1_PATHWAY	8	0.554989	1.161293	0.286064	0.674619	0.613329	1887	tags=38%	list=12%	signal=33%
REACTOME_DNA_REPLICATION_PRE_INITIATION	96	0.359531	1.120302	0.286449	0.674619	0.613329	2680	tags=22%	list=17%	signal=18%
REACTOME_COLLAGEN_CHAIN_TRIMERIZATION	36	0.389092	1.097225	0.286385	0.674619	0.613329	660	tags=14%	list=4%	signal=13%
REACTOME_LIPID_PARTICLE_ORGANIZATION	3	-0.77597	-1.18193	0.287908	0.676351	0.614904	3620	tags=100%	list=22%	signal=78%
REACTOME_RHOB_GTPASE_CYCLE	68	0.352997	1.05884	0.288	0.676351	0.614904	1231	tags=22%	list=8%	signal=20%
REACTOME_OPIOID_SIGNALLING	68	-0.46847	-1.14388	0.289624	0.679202	0.617496	1777	tags=18%	list=11%	signal=16%
REACTOME_EPIGENETIC_REGULATION_OF_GENE_EXPRESSION	66	0.350072	1.045315	0.291339	0.681297	0.6194	2459	tags=18%	list=15%	signal=15%
REACTOME_SIGNALING_BY_MET	66	0.346892	1.03582	0.291339	0.681297	0.6194	2556	tags=35%	list=16%	signal=29%
REACTOME_FATTY_ACYL_COA_BIOSYNTHESIS	28	-0.53162	-1.16282	0.292428	0.681921	0.619968	1720	tags=32%	list=11%	signal=29%
REACTOME_PROCESSIVE_SYNTHESIS_ON_THE_C_STRAND_OF_THE_TELOMERE	17	0.450283	1.122752	0.292208	0.681921	0.619968	452	tags=12%	list=3%	signal=11%
REACTOME_INTERLEUKIN_23_SIGNALING	5	0.659665	1.204394	0.296296	0.682144	0.62017	2293	tags=80%	list=14%	signal=69%
REACTOME_TRANSPORT_OF_RCBL_WITHIN_THE_BODY	6	-0.7074	-1.20326	0.297297	0.682144	0.62017	2320	tags=67%	list=14%	signal=57%
REACTOME_GLUCURONIDATION	5	-0.72877	-1.20274	0.296501	0.682144	0.62017	3998	tags=60%	list=25%	signal=45%
REACTOME_CALCITONIN_LIKE_LIGAND_RECEPTORS	6	-0.70592	-1.20074	0.297297	0.682144	0.62017	2689	tags=67%	list=17%	signal=56%
REACTOME_RUNX2_REGULATES_BONE_DEVELOPMENT	6	0.611735	1.196769	0.297539	0.682144	0.62017	5296	tags=67%	list=33%	signal=45%
BIOCARTA_LYMPHOCYTE_PATHWAY	8	-0.66372	-1.1931	0.293423	0.682144	0.62017	2076	tags=88%	list=13%	signal=76%
BIOCARTA_NGF_PATHWAY	19	-0.56643	-1.16807	0.293463	0.682144	0.62017	390	tags=16%	list=2%	signal=15%
WP_EDA_SIGNALING_IN_HAIR_FOLLICLE_DEVELOPMENT	15	-0.58399	-1.16469	0.297496	0.682144	0.62017	1151	tags=20%	list=7%	signal=19%
WP_BMP_SIGNALING_PATHWAY_IN_EYELID_DEVELOPMENT	19	-0.56216	-1.15927	0.297636	0.682144	0.62017	2467	tags=47%	list=15%	signal=40%
WP_TRANSCRIPTIONAL_ACTIVATION_BY_NFE2L2_IN_RESPONSE_TO_PHYTOCHEMI	13	0.497678	1.154532	0.294985	0.682144	0.62017	4135	tags=38%	list=26%	signal=29%
REACTOME_SIGNALING_BY_TGFB_FAMILY_MEMBERS	95	-0.44313	-1.11902	0.294053	0.682144	0.62017	3078	tags=26%	list=19%	signal=21%
REACTOME_ANCHORING_OF_THE_BASAL_BODY_TO_THE_PLASMA_MEMBRANE	95	0.350837	1.085794	0.297872	0.682144	0.62017	3004	tags=28%	list=19%	signal=23%
REACTOME_HDR_THROUGH_HOMOLOGOUS_RECOMBINATION_HRR	54	0.357833	1.082179	0.296774	0.682144	0.62017	1801	tags=19%	list=11%	signal=17%
REACTOME_SENSING_OF_DNA_DOUBLE_STRAND_BREAKS	6	0.611072	1.195473	0.299776	0.685557	0.623274	4752	tags=83%	list=29%	signal=59%
REACTOME_SUMO_IS_TRANSFERRED_FROM_E1_TO_E2_UBE2I_UBC9	5	0.654391	1.194764	0.300654	0.685672	0.623378	1887	tags=40%	list=12%	signal=35%
REACTOME_SUMOYLATION_OF_TRANSCRIPTION_FACTORS	15	0.478533	1.14017	0.30031	0.685672	0.623378	3167	tags=33%	list=20%	signal=27%
BIOCARTA_TH1TH2_PATHWAY	9	-0.64306	-1.18371	0.301303	0.686184	0.623843	3418	tags=67%	list=21%	signal=53%
WP_MYOMETRIAL_RELAXATION_AND_CONTRACTION_PATHWAYS	135	-0.42552	-1.10081	0.301706	0.686184	0.623843	1870	tags=16%	list=12%	signal=15%
REACTOME_ABACAVIR_ADME	5	-0.72378	-1.19451	0.305709	0.690477	0.627746	330	tags=40%	list=2%	signal=39%
WP_ESTROGEN_METABOLISM	5	0.653296	1.192766	0.305011	0.690477	0.627746	166	tags=39%	list=1%	signal=40%
BIOCARTA_RARRXR_PATHWAY	6	0.609368	1.192139	0.304251	0.690477	0.627746	104	tags=17%	list=1%	signal=17%
WP_MIR302367_PROMOTING_CARDIOMYOCYTE_PROLIFERATION	3	0.723228	1.170972	0.305613	0.690477	0.627746	986	tags=33%	list=6%	signal=31%
REACTOME_ABC_TRANSPORTERS_IN_LIPID_HOMEOSTASIS	14	-0.58748	-1.16412	0.306092	0.690477	0.627746	4262	tags=64%	list=26%	signal=47%
REACTOME_REGULATION_OF_MRNA_STABILITY_BY_PROTEINS_THAT_BIND_AU_RI	82	0.349321	1.065261	0.304762	0.690477	0.627746	5830	tags=49%	list=36%	signal=31%
REACTOME_VITAMIN_B5_PANTOTHENATE_METABOLISM	13	0.493948	1.145878	0.306785	0.691099	0.628312	3764	tags=38%	list=23%	signal=30%
REACTOME_SIGNALING_BY_BMP	25	-0.53658	-1.16379	0.307895	0.692659	0.62973	5196	tags=64%	list=32%	signal=43%
REACTOME_SYNAPTIC_ADHESION_LIKE_MOLECULES	20	-0.55691	-1.15464	0.308762	0.693326	0.630337	2671	tags=45%	list=17%	signal=38%
BIOCARTA_CHEMICAL_PATHWAY	18	0.44965	1.111584	0.309028	0.693326	0.630337	3599	tags=39%	list=22%	signal=30%
REACTOME_EPHRIN_SIGNALING	18	-0.56101	-1.1506	0.310924	0.695699	0.632493	1052	tags=22%	list=7%	signal=21%
REACTOME_DNA_REPLICATION	123	0.33875	1.100974	0.310716	0.695699	0.632493	3371	tags=24%	list=21%	signal=19%
BIOCARTA_D4GDI_PATHWAY	10	0.519135	1.138191	0.31383	0.700711	0.63705	3492	tags=30%	list=22%	signal=24%
REACTOME_INTRINSIC_PATHWAY_FOR_APOPTOSIS	37	0.385737	1.088651	0.31401	0.700711	0.63705	4268	tags=38%	list=26%	signal=28%
BIOCARTA_ERBB3_PATHWAY	6	-0.69948	-1.18978	0.317117	0.700817	0.637147	197	tags=50%	list=1%	signal=49%
BIOCARTA_NOTCH_PATHWAY	6	-0.69686	-1.18533	0.317117	0.700817	0.637147	4015	tags=67%	list=25%	signal=50%
WP_MIR127_IN_MESENODERM_DIFFERENTIATION	6	-0.69655	-1.1848	0.317117	0.700817	0.637147	1116	tags=50%	list=7%	signal=47%
BIOCARTA_MONOCYTE_PATHWAY	9	-0.63432	-1.16762	0.315961	0.700817	0.637147	2858	tags=89%	list=18%	signal=73%
WP_HEDGEHOG_SIGNALING_PATHWAY	21	-0.55139	-1.15665	0.317439	0.700817	0.637147	1151	tags=24%	list=7%	signal=22%
REACTOME_KERATAN_SULFATE_KERATIN_METABOLISM	32	-0.50879	-1.1397	0.316456	0.700817	0.637147	3575	tags=47%	list=22%	signal=37%
BIOCARTA_KCAF_PATHWAY	9	0.534371	1.137953	0.31701	0.700817	0.637147	4723	tags=67%	list=29%	signal=47%
REACTOME_ANTIGEN_PROCESSING_CROSS_PRESENTATION	74	-0.45994	-1.12703	0.316686	0.700817	0.637147	2728	tags=20%	list=17%	signal=17%
REACTOME_BETA_OXIDATION_OF_LAURYL_COA_TO_DECANOYL_COA_COA	5	0.642163	1.172439	0.318083	0.701024	0.637335	4472	tags=80%	list=17%	signal=58%
REACTOME_ADRENALINE_NORADRENALINE_INHIBITS_INSULIN_SECRETION	21	-0.54959	-1.15289	0.318801	0.701024	0.637335	884	tags=29%	list=5%	signal=27%
REACTOME_GABA_SYNTHESIS_RELEASE_REUPTAKE_AND_DEGRADATION	19	-0.55171	-1.13771	0.318498	0.701024	0.637335	765	tags=21%	list=5%	signal=20%
BIOCARTA_ERK_PATHWAY	25	-0.53284	-1.15568	0.319737	0.702151	0.638359	2337	tags=28%	list=14%	signal=24%
REACTOME_SIGNALING_BY_NUCLEAR_RECEPTORS	160	0.335416	1.063116	0.321743	0.70469	0.640668	2437	tags=26%	list=15%	signal=23%
WP_AMINO_ACID_METABOLISM	78	0.339991	1.034904	0.321739	0.70469	0.640668	3129	tags=42%	list=19%	signal=34%
REACTOME_ELEVATION_OF_CYTOSOLIC_CA2_LEVELS	12	-0.59804	-1.16391	0.322289	0.704954	0.640908	2684	tags=83%	list=17%	signal=70%
REACTOME_NEPHRIN_FAMILY_INTERACTIONS	8	-0.65246	-1.17286	0.325464	0.705384	0.641299	590	tags=25%	list=4%	signal=24%
REACTOME_BETA_OXIDATION_OF_OCTANOYL_COA_TO_HEXANOYL_COA	5	0.639939	1.168378	0.324619	0.705384	0.641299	4472	tags=80%	list=28%	signal=58%
BIOCARTA_IL4_PATHWAY	10	0.515593	1.130426	0.324468	0.705384	0.641299	2147	tags=40%	list=13%	signal=35%
REACTOME_CLEAVAGE_OF_THE_DAMAGED_PYRIMIDINE	8	0.539657	1.129212	0.325183	0.705384	0.641299	4891	tags=62%	list=30%	signal=44%
BIOCARTA_GCR_PATHWAY	15	0.468674	1.116679	0.325077	0.705384	0.641299	2147	tags=47%	list=13%	signal=40%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_THE_AP_2_TFAP2_FAMILY_OF_T	17	0.441964	1.092583	0.322917	0.705384	0.641299	3426	tags=28%	list=21%	signal=22%
REACTOME_BETA_CATENIN_PHOSPHORYLATION_CASCADE	18	0.435605	1.086152	0.324675	0.705384	0.641299	5694	tags=76%	list=35%	signal=50%
REACTOME_FACTORS_INVOLVED_IN_MEGAKARYOCYTE_DEVELOPMENT_AND_PLA1	106	0.340495	1.095706	0.326031	0.705691	0.641578	3184	tags=32%	list=20%	signal=26%
BIOCARTA_NOS1_PATHWAY	19	-0.54827	-1.13063	0.326843	0.706526	0.642337	1054	tags=21%	list=7%	signal=20%
REACTOME_HISTIDINE_CATABOLISM	4	-0.72177	-1.16687	0.327684	0.707421	0.643151	988	tags=50%	list=6%	signal=47%
REACTOME_BETA_OXIDATION_OF_HEXANOYL_COA_TO_BUTANOYL_COA	5	0.637181	1.163343	0.328976	0.708367	0.644011	4472	tags=80%	list=28%	signal=58%
BIOCARTA_PPARG_PATHWAY	7	0.549296	1.13338	0.328767	0.708367	0.644011	104	tags=14%	list=1%	signal=14%
REACTOME_PLASMA_LIPOPROTEIN_ASSEMBLY	13	-0.58508	-1.14898	0.330317	0.710331	0.645796	2394	tags=38%	list=15%	signal=33%
WP_MAPK_SIGNALING_PATHWAY	151	-0.41668	-1.08468	0.331217	0.711344	0.646718	531	tags=8%	list=3%	signal=8%
REACTOME_RECRUITMENT_OF_NUMA_TO_MITOTIC_CENTROSOMES	84	0.326814	1.00794	0.333333	0.714963	0.650008	5001	tags=46%	list=31%	signal=32%
REACTOME_INHIBITION_OF_REPLICATION_INITIATION_OF_DAMAGED_DNA_BY_RB	10	0.51163	1.121736	0.335106	0.716911	0.651779	5627	tags=80%	list=35%	signal=52%
REACTOME_CARGO_RECOGNITION_FOR_CLATHRIN_MEDIATED_ENDOCYTOSIS	92	-0.43719	-1.09712	0.334807	0.716911	0.651779	941	tags=11%	list=6%	signal=10%
REACTOME_SIGNALING_BY_NTRK2_TRKB	8	-0.64734	-1.16367	0.335582	0.717003	0.651863	307	tags=25%	list=2%	signal=25%
BIOCARTA_MRP_PATHWAY	4	-0.71438	-1.15492	0.3371	0.719248	0.653903	2805	tags=50%	list=17%	signal=41%
REACTOME_SPRY_REGULATION_OF_FGF_SIGNALING	16	0.451137	1.095223	0.3375	0.719248	0.653903	3034	tags=38%	list=19%	signal=30%
REACTOME_PTK6_PROMOTES_HIF1A_STABILIZATION	5	-0.71472	-1.17956	0.338858	0.720291	0.654851	22			



WP_ADIPOGENESIS_GENES	110	-0.42347	-1.08176	0.341622	0.723383	0.657662	1869	tags=16%	list=12%	signal=15%
REACTOME_SIGNALING_BY_RECEPTOR_TYROSINE_KINASES	372	-0.39158	-1.05984	0.341439	0.723383	0.657662	2068	tags=15%	list=13%	signal=13%
BIOCARTA_CTLA4_PATHWAY	9	0.52566	1.119404	0.342784	0.724127	0.658339	2303	tags=33%	list=14%	signal=29%
REACTOME_ACTIVATED_NOTCH1_TRANSMITS_SIGNAL_TO_THE_NUCLEUS	10	0.506797	1.11114	0.343085	0.724127	0.658339	3441	tags=50%	list=21%	signal=39%
REACTOME_CARBOXYTERMINAL_POST_TRANSLATIONAL_MODIFICATIONS_OF_TUB	21	0.426757	1.086453	0.343284	0.724127	0.658339	3561	tags=29%	list=22%	signal=22%
REACTOME_ACTIVATION_OF_RAC1_DOWNSTREAM_OF_NMDARS	6	0.592301	1.158748	0.344519	0.724323	0.658517	1408	tags=33%	list=9%	signal=30%
BIOCARTA_VOSESITY_PATHWAY	6	0.5921	1.158356	0.344519	0.724323	0.658517	104	tags=17%	list=1%	signal=17%
BIOCARTA_IL2_PATHWAY	21	-0.53447	-1.12118	0.344687	0.724323	0.658517	49	tags=10%	list=0%	signal=10%
REACTOME_RHO_GTPASE_EFFECTORS	234	0.296953	1.014055	0.346184	0.726548	0.66054	3034	tags=27%	list=19%	signal=22%
REACTOME_PEROXISOMAL_LIPID_METABOLISM	25	0.425798	1.102833	0.347107	0.727565	0.661465	4434	tags=48%	list=27%	signal=35%
REACTOME_CAMK_IV_MEDIATED_PHOSPHORYLATION_OF_CREB	5	0.628633	1.147736	0.348584	0.728809	0.662596	1408	tags=40%	list=9%	signal=37%
REACTOME_IKK_COMPLEX_RECRUITMENT_MEDIATED_BY_RIP1	23	0.412734	1.066565	0.34902	0.728809	0.662596	2308	tags=22%	list=14%	signal=19%
REACTOME_NOD1_2_SIGNALING_PATHWAY	31	0.389875	1.063976	0.348624	0.728809	0.662596	2308	tags=26%	list=14%	signal=22%
REACTOME_INSULIN_RECEPTOR_SIGNALLING_CASCADE	38	0.375403	1.074628	0.35122	0.73248	0.665934	3034	tags=32%	list=19%	signal=26%
REACTOME_ANTIMICROBIAL_PEPTIDES	19	-0.53652	-1.10639	0.351878	0.732931	0.666343	4160	tags=37%	list=26%	signal=27%
REACTOME_TANDEM_PORE_DOMAIN_POTASSIUM_CHANNELS	8	-0.63582	-1.14296	0.354132	0.734856	0.668093	3276	tags=88%	list=20%	signal=70%
REACTOME_GP1B_IX_V_ACTIVATION_SIGNALLING	11	0.495457	1.09688	0.35376	0.734856	0.668093	2116	tags=27%	list=13%	signal=24%
REACTOME_LYSINE_CATABOLISM	11	0.493527	1.092608	0.35376	0.734856	0.668093	3109	tags=55%	list=19%	signal=44%
REACTOME_HYDROLYSIS_OF_LPC	6	-0.68849	-1.1711	0.354955	0.735644	0.66881	2800	tags=67%	list=17%	signal=55%
REACTOME_SPERM_MOTILITY_AND_TAXES	5	-0.70348	-1.16101	0.355433	0.735715	0.668874	481	tags=40%	list=3%	signal=39%
REACTOME_ENERGY_DEPENDENT_REGULATION_OF_MTOR_BY_LKB1_AMPK	28	0.400363	1.059793	0.355932	0.73583	0.668979	6132	tags=75%	list=38%	signal=47%
REACTOME_DEGRADATION_OF_BETA_CATENIN_BY_THE_DESTRUCTION_COMPLEX	78	0.327667	0.997389	0.356522	0.736131	0.669252	5771	tags=55%	list=36%	signal=36%
REACTOME_NEUROTRANSMITTER_CLEARANCE	6	-0.68619	-1.16718	0.358559	0.737709	0.670687	626	tags=33%	list=4%	signal=32%
WP_ELECTRON_TRANSPORT_CHAIN	65	-0.45034	-1.09475	0.358621	0.737709	0.670687	1486	tags=5%	list=9%	signal=4%
REACTOME_MET_PROMOTES_CELL_MOTILITY	31	0.387403	1.05723	0.357798	0.737709	0.670687	1783	tags=32%	list=11%	signal=29%
BIOCARTA_FBW7_PATHWAY	8	0.522397	1.039095	0.359413	0.738423	0.671336	2798	tags=50%	list=17%	signal=41%
BIOCARTA_IGF1_PATHWAY	22	-0.52752	-1.11423	0.360811	0.740377	0.673112	420	tags=9%	list=3%	signal=9%
REACTOME_GLUTAMATE_NEUROTRANSMITTER_RELEASE_CYCLE	23	-0.52375	-1.1122	0.362784	0.740759	0.67346	855	tags=22%	list=5%	signal=21%
REACTOME_EGFR_DOWNREGULATION	27	0.401491	1.060584	0.3625	0.740759	0.67346	2276	tags=33%	list=14%	signal=29%
REACTOME_ANTIVIRAL_MECHANISM_BY_IFN_STIMULATED_GENES	31	0.384708	1.049875	0.362385	0.740759	0.67346	3754	tags=42%	list=23%	signal=32%
REACTOME_RHO_GTPASES_ACTIVATE_FORMINS	127	0.313099	1.001623	0.362319	0.740759	0.67346	3024	tags=20%	list=19%	signal=16%
REACTOME_INSERTION_OF_TAIL_ANCHORED_PROTEINS_INTO_THE_ENDOPLASMIC	14	-0.55729	-1.1043	0.364042	0.741333	0.673982	573	tags=29%	list=4%	signal=28%
REACTOME_TELOMERE_C_STRAND_SYNTHESIS_INITIATION	12	0.48322	1.089071	0.363905	0.741333	0.673982	4422	tags=50%	list=27%	signal=36%
REACTOME_PROCESSING_OF_CAPPED_INTRONLESS_PRE_MRNA	28	0.39788	1.053218	0.364407	0.741333	0.673982	2857	tags=29%	list=18%	signal=24%
REACTOME_ADP_SIGNALLING_THROUGH_P2Y_PURINOCEPTOR_1	22	-0.52334	-1.1054	0.364865	0.741355	0.674002	1327	tags=18%	list=8%	signal=17%
REACTOME_ARACHIDONATE_PRODUCTION_FROM_DAG	5	-0.69791	-1.15183	0.366483	0.741781	0.674389	2196	tags=80%	list=14%	signal=69%
REACTOME_WNT5A_DEPENDENT_INTERNALIZATION_OF_FZD2_FZD5_AND_ROR2	12	0.481833	1.085946	0.366864	0.741781	0.674389	2105	tags=33%	list=13%	signal=29%
BIOCARTA_SET_PATHWAY	9	0.508785	1.083468	0.365979	0.741781	0.674389	6381	tags=67%	list=40%	signal=40%
REACTOME_RND2_GTPASE_CYCLE	39	0.362104	1.045371	0.365854	0.741781	0.674389	1233	tags=23%	list=8%	signal=21%
WP_ESTROGEN_SIGNALING	73	0.326276	0.995382	0.368	0.743172	0.675654	3704	tags=44%	list=23%	signal=34%
REACTOME_AURKA_ACTIVATION_BY_TPX2	70	0.327033	0.983447	0.368852	0.743987	0.676395	3004	tags=29%	list=19%	signal=23%
REACTOME_DEX_H_BOX_HELICASES_ACTIVATE_TYPE_I_IFN_AND_INFLAMMATORY	7	0.537614	1.109277	0.369863	0.744215	0.676602	2445	tags=43%	list=15%	signal=36%
REACTOME_CYTOCHROME_P450_ARRANGED_BY_SUBSTRATE_TYPE	33	-0.49246	-1.10054	0.369565	0.744215	0.676602	1904	tags=18%	list=12%	signal=16%
REACTOME_AGGREPHAGY	30	0.385756	1.044577	0.370536	0.744654	0.677001	4615	tags=40%	list=29%	signal=29%
REACTOME_RESOLUTION_OF_SISTER_CHROMATID_COHESION	114	0.315221	0.992341	0.371429	0.744654	0.677001	5777	tags=45%	list=36%	signal=29%
REACTOME_PCP_CE_PATHWAY	84	0.321387	0.991201	0.371429	0.744654	0.677001	2880	tags=21%	list=18%	signal=18%
REACTOME_PROLACTIN_RECEPTOR_SIGNALING	7	0.53657	1.107122	0.372146	0.745191	0.67749	4359	tags=57%	list=27%	signal=42%
REACTOME_FATTY_ACIDS_BOUND_TO_GPR40_FFAR1_REGULATE_INSULIN_SECRET	6	0.578049	1.130868	0.373602	0.747204	0.679319	3970	tags=67%	list=25%	signal=50%
BIOCARTA_EPO_PATHWAY	19	-0.52714	-1.08705	0.374131	0.74736	0.679461	49	tags=11%	list=0%	signal=11%
BIOCARTA_MFZD2_PATHWAY	15	0.445865	1.062333	0.374613	0.747423	0.679518	3432	tags=40%	list=21%	signal=32%
REACTOME_LECTIN_PATHWAY_OF_COMPLEMENT_ACTIVATION	4	-0.69712	-1.12702	0.376648	0.750579	0.682388	2911	tags=75%	list=18%	signal=61%
REACTOME_INTERLEUKIN_7_SIGNALING	13	0.472056	1.095092	0.377581	0.750635	0.682439	1276	tags=38%	list=8%	signal=35%
BIOCARTA_ERAD_PATHWAY	14	-0.55167	-1.09315	0.377415	0.750635	0.682439	2081	tags=43%	list=13%	signal=37%
REACTOME_FCEIR_MEDIATED_MAPK_ACTIVATION	28	-0.49972	-1.09304	0.37859	0.751739	0.683443	49	tags=7%	list=0%	signal=7%
REACTOME_SIGNAL_REGULATORY_PROTEIN_FAMILY_INTERACTIONS	7	-0.65203	-1.13066	0.382979	0.753146	0.684721	313	tags=29%	list=2%	signal=28%
REACTOME_ACTIVATION_OF_THE_PHOTOTRANSDUCTION_CASCADE	3	0.695227	1.125637	0.380457	0.753146	0.684721	4177	tags=67%	list=26%	signal=49%
REACTOME_METABOLISM_OF_AMINE_DERIVED_HORMONES	11	-0.58053	-1.10984	0.382582	0.753146	0.684721	237	tags=55%	list=1%	signal=54%
BIOCARTA_VITCB_PATHWAY	10	-0.59168	-1.10578	0.383387	0.753146	0.684721	1208	tags=30%	list=7%	signal=28%
BIOCARTA_PRION_PATHWAY	10	-0.59058	-1.10373	0.383387	0.753146	0.684721	625	tags=30%	list=4%	signal=29%
REACTOME_CYTOSOLIC_SULFONATION_OF_SMALL_MOLECULES	15	-0.54463	-1.0862	0.381443	0.753146	0.684721	2229	tags=47%	list=14%	signal=40%
BIOCARTA_GABA_PATHWAY	10	0.489362	1.072916	0.382979	0.753146	0.684721	6	tags=10%	list=0%	signal=10%
WP_SELENIUM_METABOLISM_SELENOPROTEINS	42	-0.46337	-1.06879	0.379902	0.753146	0.684721	2230	tags=19%	list=14%	signal=16%
REACTOME_MITOTIC_SPINDLE_CHECKPOINT	107	0.306127	0.976977	0.380952	0.753146	0.684721	6054	tags=48%	list=38%	signal=30%
REACTOME_GLUCAAGON_SIGNALING_IN_METABOLIC_REGULATION	5	-0.68535	-1.13109	0.384899	0.754265	0.685739	936	tags=40%	list=6%	signal=38%
REACTOME_PKA_ACTIVATION_IN_GLUCAAGON_SIGNALING	5	-0.68535	-1.13109	0.384899	0.754265	0.685739	936	tags=40%	list=6%	signal=38%
WP_NUCLEAR_RECEPTORS	31	0.379306	1.035133	0.385321	0.754265	0.685739	1196	tags=26%	list=7%	signal=24%
REACTOME_SEMA3A_PAK_DEPENDENT_AXON_REPULSION	14	0.452771	1.05982	0.386018	0.754738	0.686169	2852	tags=50%	list=18%	signal=41%
REACTOME_REGULATION_BY_C_FLIP	9	0.502992	1.07113	0.386598	0.754982	0.68639	1531	tags=22%	list=9%	signal=20%
BIOCARTA_NEUTROPHIL_PATHWAY	7	-0.64908	-1.12555	0.388298	0.756164	0.687465	2858	tags=86%	list=18%	signal=71%
REACTOME_SYNTHESIS_OF_15_EICOSATETRAENOIC_ACID_DERIVATIVES	4	-0.69276	-1.11996	0.387947	0.756164	0.687465	2754	tags=50%	list=17%	signal=41%
REACTOME_CYTOPROTECTION_BY_HMOX1	46	0.346246	1.021393	0.388571	0.756164	0.687465	1149	tags=13%	list=7%	signal=12%
BIOCARTA_ARF_PATHWAY	15	0.439404	1.04694	0.390093	0.758234	0.689348	1621	tags=33%	list=10%	signal=30%
REACTOME_ACYL_CHAIN_REMODELLING_OF_PC	20	-0.51985	-1.07781	0.392211	0.76146	0.69228	2589	tags=40%	list=16%	signal=34%
REACTOME_STRIATED_MUSCLE_CONTRACTION	31	-0.48835	-1.09004	0.392857	0.761821	0.692609	2618	tags=16%	list=16%	signal=14%
REACTOME_SIGNALING_BY_ERBB4	31	-0.48612	-1.08507	0.395408	0.765872	0.696292	2496	tags=29%	list=15%	signal=25%
REACTOME_TIGHT_JUNCTION_INTERACTIONS	6	-0.66804	-1.13631	0.396396	0.766891	0.697218	2542	tags=67%	list=16%	signal=56%
BIOCARTA_ACETAMINOPHEN_PATHWAY	3	-0.7336	-1.11739	0.397313	0.767768	0.698015	847	tags=100%	list=5%	signal=95%
BIOCARTA_NFAT_PATHWAY	42	0.355008	1.023388	0.403226	0.778287	0.707578	3628	tags=43%	list=22%	signal=33%
REACTOME_ASPIRIN_ADME	7	-0.64303	-1.11506	0.404255	0.778461	0.707737	2805	tags=29%	list=17%	signal=24%
REACTOME_BICARBONATE_TRANSPORTERS	9	-0.59308	-1.0917	0.403909	0.778461	0.707737	2259	tags=44%	list=14%	signal=38%
BIOCARTA_FXR_PATHWAY	4	-0.68577	-1.10688	0.40678	0.780778	0.709844	36	tags=50%	list=0%	signal=50%
REACTOME_PRESYNAPTIC_DEPOLARIZATION_AND_CALCIIUM_CHANNEL_OPENING	11	-0.5663	-1.08264	0.407465	0.780778	0.709844	2408	tags=36%	list=15%	signal=31%
BIOCARTA_CDC42RAC_PATHWAY	7	0.521252	1.075516	0.406393	0.780778	0.709844	1242	tags=43%	list=8%	signal=40%
WP_HOMOLOGOUS_RECOMBINATION	12	0.46815	1.055108	0.408284	0.780778	0.709844	502	tags=25%	list=3%	signal=24%
REACTOME_DNA_DAMAGE_BYPASS	47	0.338627	1.010834	0.407821	0.780778	0.709844	3239	tags=34%	list=20%	signal=27%
REACTOME_DOPAMINE_NEUROTRANSMITTER_RELEASE_CYCLE	23	0.388898	1.004969	0.407843	0.780778	0.709844	2385	tags=39%	list=15%	signal=33%
WP_SREBF_AND_MIR33_IN_CHOLESTEROL_AND_LIPID_HOMEOSTASIS	11	-0.56495	-1.08006	0.40902	0.781285	0.710304	2258	tags=36%	list=14%	signal=31%
REACTOME_NUCLEAR_RECEPTOR_TRANSCRIPTION_PATHWAY	38	0.355649	1.018083	0.409756	0.781719	0.710763	1196	tags=24%	list=7%	signal=22%
REACTOME_FGFR1B_LIGAND_BINDING_AND_ACTIVATION	6	0.55974	1.095048	0.41387	0.782859	0.711735	295	tags=17%	list=2%	signal=16%
REACTOME_MOLYBDENUM_COFACTOR_BIOSYNTHESIS	5	0.599228	1.09405	0.411765	0.782859	0.711735	5889	tags=80%	list=36%	signal=51%
REACTOME_ER_QUALITY_CONTROL_COMPARTMENT_ERQC	4	0.631628	1.092623	0.414013	0.782859	0.711735	1338	tags=25%	list=8%	signal=23%
BIOCARTA_CFR_PATHWAY	9	-0.58951	-1.08514	0.412052	0.782859	0.711735	936	tags=33%	list=6%	signal=31%
REACTOME_REGULATION_OF_FZD_BY_UBIQUITINATION	18	-0.52185	-1.0703	0.414566	0.782859	0.711735	2658	tags=39%	list=16%	signal=33%
REACTOME_INFLAMMASOMES	12	-0.54982	-1.07007	0.414157	0.782859	0.711735	2561	tags=42%	list=16%	signal=35%
WP_FATTY_ACID_OXIDATION	10	0.482232	1.057282	0.412234	0.782859	0.711735	4653	tags=60%	list=29%	signal=43%
REACTOME_TRANSPORT_TO_THE_GOLGI_AND_SUBSEQUENT_MODIFICATION	166	-0.39485	-1.03492	0.413866	0.782859	0.711735	1435	tags=14%	list=9%	signal=13%
REACTOME_REGULATION_OF_PTEEN_GENE_TRANSCRIPTION	41	0.3								



REACTOME_FORMATION_OF_XYLULOSE_5_PHOSPHATE	5	0.594298	1.085049	0.418301	0.783672	0.712474	4950	tags=60%	list=31%	signal=42%
REACTOME_PLATELET_ADHESION_TO_EXPOSED_COLLAGEN	9	-0.58674	-1.08003	0.418567	0.783672	0.712474	2624	tags=44%	list=16%	signal=37%
REACTOME_CGMP_EFFECTS	10	-0.5776	-1.07947	0.420128	0.783672	0.712474	1026	tags=40%	list=6%	signal=37%
REACTOME_SHC1_EVENTS_IN_EGFR_SIGNALING	9	-0.58488	-1.07661	0.420195	0.783672	0.712474	2241	tags=67%	list=14%	signal=57%
REACTOME_UNFOLDED_PROTEIN_RESPONSE_UPR	11	-0.56308	-1.07648	0.416796	0.783672	0.712474	2427	tags=45%	list=15%	signal=39%
BIOCARTA_HBX_PATHWAY	7	0.515687	1.064034	0.420091	0.783672	0.712474	3712	tags=43%	list=23%	signal=33%
WP_LEPTININSULIN_SIGNALING_OVERLAP	15	0.423712	1.009552	0.417957	0.783672	0.712474	2781	tags=47%	list=17%	signal=39%
REACTOME_INTERFERON_ALPHA_BETA_SIGNALING	15	0.423489	1.009019	0.417957	0.783672	0.712474	2551	tags=33%	list=16%	signal=28%
REACTOME_DAP12_SIGNALING	24	0.383294	0.997046	0.418327	0.783672	0.712474	1257	tags=21%	list=8%	signal=19%
REACTOME_CLEC7A_DECTIN_1_SIGNALING	91	0.310218	0.97407	0.42	0.783672	0.712474	2798	tags=22%	list=17%	signal=18%
REACTOME_RNA_POLYMERASE_III_TRANSCRIPTION_INITIATION_FROM_TYPE_3_PF	26	0.387505	1.011373	0.422594	0.786624	0.715158	3823	tags=27%	list=24%	signal=21%
REACTOME_SIGNALING_BY_FGFR4	33	0.360916	1.001149	0.422727	0.786624	0.715158	1616	tags=21%	list=10%	signal=19%
REACTOME_SHC_RELATED_EVENTS_TRIGGERED_BY_IGF1R	6	-0.65713	-1.11775	0.425225	0.786856	0.71537	420	tags=33%	list=3%	signal=32%
BIOCARTA_BCR_PATHWAY	31	-0.47814	-1.06726	0.423469	0.786856	0.71537	49	tags=13%	list=0%	signal=13%
BIOCARTA_CCR5_PATHWAY	14	-0.52833	-1.0469	0.424963	0.786856	0.71537	49	tags=14%	list=0%	signal=14%
REACTOME_REGULATION_OF_INSULIN_SECRETION	55	-0.43595	-1.04421	0.424561	0.786856	0.71537	1620	tags=15%	list=10%	signal=13%
REACTOME_TNFR2_NON_CANONICAL_NF_KB_PATHWAY	83	0.31167	0.960995	0.424528	0.786856	0.71537	2552	tags=16%	list=16%	signal=13%
REACTOME_CDK_MEDIATED_PHOSPHORYLATION_AND_REMOVAL_OF_CDC6	71	0.315047	0.957254	0.42623	0.787836	0.71626	5771	tags=44%	list=36%	signal=28%
REACTOME_FGFR1_MODULATION_OF_FGFR1_SIGNALING	10	0.477866	1.047711	0.428191	0.789701	0.717956	1659	tags=30%	list=10%	signal=27%
REACTOME_METABOLISM_OF_NITRIC_OXIDE_NOS3_ACTIVATION_AND_REGULATIC	16	0.417338	1.013169	0.428125	0.789701	0.717956	2797	tags=38%	list=17%	signal=31%
REACTOME_ARACHIDONIC_ACID_METABOLISM	36	-0.45723	-1.03119	0.429658	0.791525	0.719614	3814	tags=39%	list=24%	signal=30%
WP_REGULATION_OF_ACTIN_CYTOSKELETON	136	0.31211	0.982939	0.430769	0.792043	0.720085	2947	tags=34%	list=18%	signal=28%
REACTOME_TP53_REGULATES_METABOLIC_GENES	69	0.314619	0.948326	0.430894	0.792043	0.720085	4732	tags=38%	list=29%	signal=27%
REACTOME_ACETYLCHOLINE_REGULATES_INSULIN_SECRETION	7	0.511648	1.055699	0.431507	0.792232	0.720256	3970	tags=57%	list=25%	signal=43%
REACTOME_P13OCAS_LINKAGE_TO_MAPK_SIGNALING_FOR_INTEGRINS	12	0.460941	1.038859	0.431953	0.792232	0.720256	3575	tags=42%	list=22%	signal=32%
WP_EGFR1_SIGNALING_PATHWAY	169	0.315592	1.01909	0.43263	0.792597	0.720588	2619	tags=33%	list=16%	signal=28%
REACTOME_SIGNAL_AMPLIFICATION	29	-0.47665	-1.04692	0.433766	0.793802	0.721684	1327	tags=17%	list=8%	signal=16%
REACTOME_REGULATION_OF_EXPRESSION_OF_SLITS_AND_ROBOS	7	-0.62474	-1.08334	0.434397	0.79408	0.721937	1871	tags=57%	list=12%	signal=51%
REACTOME_THE_PHOTOTRANSDUCTION_CASCADE	23	0.382199	0.987657	0.435294	0.794843	0.722631	5624	tags=57%	list=35%	signal=37%
REACTOME_VITAMIN_D_CALCIFEROL_METABOLISM	4	0.618125	1.069265	0.437367	0.79775	0.725274	3167	tags=50%	list=20%	signal=40%
REACTOME_SIGNALING_BY_ROBO_RECEPTORS	20	-0.50275	-1.04236	0.438108	0.798224	0.725704	2130	tags=30%	list=13%	signal=26%
REACTOME_INTERLEUKIN_4_AND_INTERLEUKIN_13_SIGNALING	10	0.473468	1.038067	0.43883	0.798651	0.726093	2293	tags=40%	list=14%	signal=34%
REACTOME_MRNA_SPLICING_MINOR_PATHWAY	48	0.337786	0.989001	0.439306	0.798651	0.726093	2986	tags=23%	list=18%	signal=19%
BIOCARTA_ACE2_PATHWAY	11	0.46319	1.025445	0.440111	0.798703	0.72614	1669	tags=18%	list=10%	signal=16%
REACTOME_RNA_POLYMERASE_II_TRANSCRIPTION_TERMINATION	61	0.321749	0.950838	0.440299	0.798703	0.72614	5281	tags=48%	list=33%	signal=32%
REACTOME_ALPHA_LINOLENIC_OMEGA3_AND_LINOLEIC_OMEGA6_ACID_METABO	12	-0.53497	-1.04116	0.441265	0.799582	0.726939	1233	tags=42%	list=8%	signal=39%
REACTOME_RELEASE_OF_HH_NP_FROM_THE_SECRETING_CELL	6	-0.64306	-1.09382	0.443243	0.801515	0.728697	2186	tags=33%	list=14%	signal=29%
REACTOME_AMPLIFICATION_OF_SIGNAL_FROM_THE_KINETOCHORES	90	0.308779	0.957684	0.443299	0.801515	0.728697	5859	tags=46%	list=36%	signal=29%
REACTOME_ACY1_CHAIN_REMODELING_OF_CL	5	-0.65693	-1.08418	0.443831	0.801602	0.728776	1327	tags=60%	list=8%	signal=55%
REACTOME_CREB_PHOSPHORYLATION	7	0.498939	1.029476	0.445205	0.803211	0.730238	759	tags=29%	list=5%	signal=27%
REACTOME_TRIF_MEDIATED_PROGRAMMED_CELL_DEATH	9	0.485531	1.033947	0.445876	0.803547	0.730543	1531	tags=22%	list=9%	signal=20%
REACTOME_ESTROGEN_STIMULATED_SIGNALING_THROUGH_PRKCZ	5	0.572681	1.054582	0.446623	0.804019	0.730972	3034	tags=60%	list=19%	signal=49%
BIOCARTA_BCELLSURVIVAL_PATHWAY	16	-0.51802	-1.04344	0.447214	0.804209	0.731146	49	tags=12%	list=0%	signal=12%
REACTOME_SUMOYLATION_OF_DNA_REPLICATION_PROTEINS	41	0.33834	0.978834	0.447917	0.8046	0.731501	3167	tags=32%	list=20%	signal=26%
REACTOME_PRE_NOTCH_EXPRESSION_AND_PROCESSING	6	0.53538	1.047392	0.449664	0.805724	0.732522	30	tags=17%	list=0%	signal=17%
REACTOME_NERVOUS_SYSTEM_DEVELOPMENT	253	-0.38256	-1.01886	0.449741	0.805724	0.732522	2241	tags=20%	list=14%	signal=17%
REACTOME_APOPTOTIC_FACTOR_MEDIATED_RESPONSE	16	0.407217	0.988598	0.45	0.805724	0.732522	3711	tags=25%	list=23%	signal=19%
REACTOME_REGULATION_OF_TP53_ACTIVITY_THROUGH_PHOSPHORYLATION	86	0.302876	0.942651	0.45283	0.809916	0.736334	2575	tags=27%	list=16%	signal=23%
REACTOME_METABOLISM_OF_PORPHYRINS	20	-0.4957	-1.02774	0.453408	0.810075	0.736479	4786	tags=45%	list=30%	signal=32%
REACTOME_REGULATION_OF_KIT_SIGNALING	13	0.434495	1.007958	0.454277	0.810755	0.737097	1616	tags=23%	list=10%	signal=21%
WP_HISTONE_MODIFICATIONS	5	-0.64471	-1.06403	0.458564	0.811122	0.737431	262	tags=20%	list=2%	signal=20%
REACTOME_NUCLEAR_SIGNALING_BY_ERBB4	11	-0.54567	-1.04319	0.455677	0.811122	0.737431	2496	tags=55%	list=15%	signal=46%
BIOCARTA_CELL2CELL_PATHWAY	9	-0.56172	-1.03398	0.457655	0.811122	0.737431	121	tags=22%	list=1%	signal=22%
WP_HEME_BIOSYNTHESIS	9	-0.56127	-1.03315	0.459283	0.811122	0.737431	627	tags=22%	list=4%	signal=21%
REACTOME_THE_CANONICAL_RETINOID_CYCLE_IN_RODS_TWILIGHT_VISION	15	-0.5142	-1.02551	0.458027	0.811122	0.737431	2269	tags=27%	list=14%	signal=23%
WP_LUNG_FIBROSIS	42	-0.44192	-1.01931	0.458333	0.811122	0.737431	2820	tags=24%	list=17%	signal=20%
REACTOME_MAPK1_ERK2_ACTIVATION	7	0.489595	1.010197	0.456621	0.811122	0.737431	3034	tags=71%	list=19%	signal=58%
REACTOME_DOWNSTREAM_SIGNALING_OF_ACTIVATED_FGFR4	9	0.398964	0.998609	0.45583	0.811122	0.737431	1087	tags=21%	list=7%	signal=20%
REACTOME_TRAF6_MEDIATED_INDUCED_OF_TAK1_COMPLEX_WITHIN_TLR4_CC	16	0.401294	0.974219	0.459375	0.811122	0.737431	1494	tags=19%	list=9%	signal=17%
REACTOME_ACTIVATION_OF_NF_KAPPAB_IN_B_CELLS	63	0.310203	0.932975	0.458647	0.811122	0.737431	3371	tags=24%	list=21%	signal=19%
REACTOME_ADENYLATE_CYCLASE_ACTIVATING_PATHWAY	10	-0.55944	-1.04553	0.460064	0.811427	0.737708	1697	tags=40%	list=11%	signal=36%
REACTOME_SEMAPHORIN_INTERACTIONS	51	-0.42852	-1.01308	0.460526	0.811427	0.737708	2001	tags=22%	list=12%	signal=19%
REACTOME_RHOBTB1_GTPASE_CYCLE	22	0.382948	0.981819	0.461832	0.8119	0.738138	4496	tags=55%	list=28%	signal=39%
REACTOME_TNFR1_INDUCED_NFKAPPAB_SIGNALING_PATHWAY	32	0.353859	0.970288	0.462264	0.8119	0.738138	2692	tags=25%	list=17%	signal=21%
WP_CHEMOKINE_SIGNALING_PATHWAY	138	0.295055	0.940469	0.461538	0.8119	0.738138	2556	tags=28%	list=16%	signal=23%
BIOCARTA_TERC_PATHWAY	6	0.519975	1.017254	0.463087	0.812485	0.73867	5627	tags=67%	list=35%	signal=43%
REACTOME_P15P_REGULATES_TP53_ACETYLATION	9	0.47166	1.004409	0.463918	0.813082	0.739212	1035	tags=22%	list=6%	signal=21%
REACTOME_VLDL_CLEARANCE	3	-0.69565	-1.05959	0.466411	0.816435	0.74226	920	tags=67%	list=6%	signal=63%
REACTOME_HEME_DEGRADATION	8	-0.58309	-1.04817	0.467116	0.816435	0.74226	5405	tags=62%	list=33%	signal=42%
WP_REGULATION_OF_CARDIAC_HYPERTROPHY_BY_MIR208	3	0.642154	1.039705	0.467775	0.816435	0.74226	5779	tags=100%	list=36%	signal=64%
WP_WHITE_FAT_CELL_DIFFERENTIATION	30	-0.45891	-1.01862	0.467866	0.816435	0.74226	11	tags=20%	list=0%	signal=20%
REACTOME_TRANSLESION_SYNTHESIS_BY_Y_FAMILY_DNA_POLYMERASES_BYPASS	38	0.339113	0.970747	0.468293	0.816435	0.74226	2775	tags=32%	list=17%	signal=26%
REACTOME_VISUAL_PHOTOTRANSDUCTION	64	-0.41974	-1.02074	0.469037	0.816793	0.742586	2269	tags=17%	list=14%	signal=15%
REACTOME_FANCONI_ANEMIA_PATHWAY	36	0.34683	0.978045	0.469484	0.816793	0.742586	1604	tags=17%	list=10%	signal=15%
BIOCARTA_CB1R_PATHWAY	6	-0.63265	-1.07612	0.472072	0.818692	0.744312	1759	tags=50%	list=11%	signal=45%
REACTOME_IRF3_MEDIATED_INDUCED_OF_TYPE_I_IFN	4	0.598137	1.034689	0.471338	0.818692	0.744312	1132	tags=50%	list=7%	signal=47%
WP_DISTAL_CONVOLUTED_TUBULE_1_DCT1_CELL	5	0.55635	1.015765	0.472767	0.818692	0.744312	5287	tags=80%	list=33%	signal=54%
REACTOME_MITOTIC_G2_G2_M_PHASES	177	0.30597	1.009556	0.471698	0.818692	0.744312	5040	tags=39%	list=31%	signal=27%
BIOCARTA_ARAP_PATHWAY	11	0.453231	1.003398	0.473538	0.818692	0.744312	942	tags=18%	list=6%	signal=17%
REACTOME_TNFR1_INDUCED_PROAPOPTOTIC_SIGNALING	22	0.379887	0.973974	0.473282	0.818692	0.744312	2692	tags=27%	list=17%	signal=23%
REACTOME_BIOSYNTHESIS_OF_EPA_DERIVED_SPMs	5	-0.63813	-1.05316	0.480663	0.818765	0.744379	847	tags=40%	list=5%	signal=38%
REACTOME_CELL_SURFACE_INTERACTIONS_AT_THE_VASCULAR_WALL	74	-0.41364	-1.01357	0.476731	0.818765	0.744379	3677	tags=32%	list=23%	signal=25%
REACTOME_FORMATION_OF_THE_BETA_CATENIN_TCF_TRANSACTIVATING_COMPI	23	-0.47582	-1.01041	0.476573	0.818765	0.744379	1245	tags=17%	list=8%	signal=16%
REACTOME_ADENYLATE_CYCLASE_INHIBITORY_PATHWAY	13	-0.51404	-1.00948	0.47813	0.818765	0.744379	1697	tags=62%	list=11%	signal=55%
REACTOME_SULFIDE_OXIDATION_TO_SULFATE	5	0.551853	1.007553	0.479303	0.818765	0.744379	5803	tags=80%	list=36%	signal=51%
BIOCARTA_PRC2_PATHWAY	10	0.45937	1.007159	0.478723	0.818765	0.744379	3944	tags=60%	list=24%	signal=45%
REACTOME_PRE_NOTCH_PROCESSING_IN_GOLGI	5	0.551496	1.006903	0.481481	0.818765	0.744379	30	tags=20%	list=0%	signal=20%
REACTOME_CALCINEURIN_ACTIVATES_NFAT	10	0.457575	1.003222	0.481383	0.818765	0.744379	1254	tags=20%	list=8%	signal=18%
WP_HYPOXIADPENDENT_DIFFERENTIATION_OF_MYOBLASTS	10	0.457324	1.002673	0.481383	0.818765	0.744379	2330	tags=30%	list=14%	signal=26%
REACTOME_DOWNSTREAM_SIGNALING_OF_ACTIVATED_FGFR3	21	0.382328	0.973345	0.477612	0.818765	0.744379	1087	tags=19%	list=7%	signal=18%
REACTOME_REGULATION_OF_RUNX3_EXPRESSION_AND_ACTIVITY	52	0.318231	0.972863	0.478528	0.818765	0.744379	2552	tags=19%	list=16%	signal=16%
REACTOME_PROTEIN_LOCALIZATION	93	0.31002	0.959893	0.478723	0.818765	0.744379	3582	tags=33%	list=22%	signal=26%
REACTOME_SMOOTH_MUSCLE_CONTRACTION	31	0.348633	0.951425	0.477064	0.818765	0.744379	2715	tags=26%	list=17%	signal=22%
REACTOME_CELLULAR_SENESCENCE	89	0.302852	0.941176	0.474227	0.818765	0.744379	3675	tags=36%	list=23%	signal=28%
REACTOME_APC_C_CDH1_MEDIATED_DEGRADATION_OF_CDC20_AND_OTHER_AP	72	0.303334	0.933938	0.47619	0.818765	0.744379	5771	tags=42%	list=36%	signal=27%
REACTOME_HOMOLOGY_DIRECTED_REPAIR	111	0.291179	0.931759	0.48	0.818765					



REACTOME_INTERLEUKIN_6_SIGNALING	8	0.472635	0.988971	0.484108	0.821199	0.746592	2303 tags=62%	list=14%	signal=54%
REACTOME_SYNTHESIS_OF_DOLICHYL_PHOSPHATE	6	-0.61545	-1.04686	0.486486	0.82264	0.747902	2616 tags=50%	list=16%	signal=42%
REACTOME_SCAVENGING_BY_CLASS_A_RECEPTORS	7	-0.59383	-1.02973	0.487589	0.82264	0.747902	2911 tags=57%	list=18%	signal=47%
REACTOME_SENSOR_PERCEPTION	70	-0.41019	-1.003	0.4875	0.82264	0.747902	2269 tags=17%	list=14%	signal=15%
REACTOME_DEUBIQUITINATION	228	0.285154	0.983365	0.488626	0.82264	0.747902	3469 tags=29%	list=21%	signal=23%
REACTOME_SYNTHESIS_OF_PIP3_AT_THE_EARLY_ENDOSOME_MEMBRANE	15	0.399438	0.951716	0.486068	0.82264	0.747902	3623 tags=60%	list=22%	signal=47%
REACTOME_EXTRA_NUCLEAR_ESTROGEN_SIGNALING	60	0.315024	0.929608	0.488722	0.82264	0.747902	2437 tags=32%	list=15%	signal=27%
REACTOME_FCE_R1_MEDIATED_NF_KB_ACTIVATION	73	0.299109	0.912501	0.488	0.82264	0.747902	4744 tags=33%	list=29%	signal=23%
REACTOME_VLDL_ASSEMBLY	3	-0.68741	-1.04703	0.489443	0.822829	0.748074	781 tags=67%	list=5%	signal=63%
BIOCARTA_IRES_PATHWAY	6	0.500105	0.978381	0.489933	0.822829	0.748074	2398 tags=33%	list=15%	signal=28%
REACTOME_GOLGI_ASSOCIATED_VESICLE_BIOGENESIS	54	0.319058	0.964912	0.490323	0.822829	0.748074	2342 tags=30%	list=15%	signal=25%
REACTOME_LEUKOTRIENE_RECEPTORS	4	-0.64411	-1.04133	0.497175	0.824056	0.749189	5749 tags=100%	list=36%	signal=64%
BIOCARTA_EEA1_PATHWAY	5	-0.62925	-1.03851	0.491713	0.824056	0.749189	2993 tags=60%	list=19%	signal=49%
BIOCARTA_TCRA_PATHWAY	5	-0.62688	-1.03459	0.493554	0.824056	0.749189	875 tags=40%	list=5%	signal=38%
BIOCARTA_ATRBRCA_PATHWAY	18	-0.49139	-1.00782	0.494398	0.824056	0.749189	1703 tags=17%	list=11%	signal=15%
BIOCARTA_EPONFKB_PATHWAY	10	-0.53823	-1.00589	0.496805	0.824056	0.749189	1832 tags=30%	list=11%	signal=27%
REACTOME_GENERATION_OF_SECOND_MESSENGER_MOLECULES	19	-0.4877	-1.00572	0.496523	0.824056	0.749189	929 tags=16%	list=6%	signal=15%
REACTOME_COLLAGEN_FORMATION	73	-0.40964	-1.00222	0.493729	0.824056	0.749189	2245 tags=29%	list=14%	signal=25%
REACTOME_G_ALPHA_Z_SIGNALING_EVENTS	31	-0.44603	-0.99557	0.497449	0.824056	0.749189	1697 tags=16%	list=11%	signal=14%
WP_ID_SIGNALING_PATHWAY	43	-0.43021	-0.99522	0.497561	0.824056	0.749189	3452 tags=26%	list=21%	signal=20%
REACTOME_DOWNREGULATION_OF_ERBB2_SIGNALING	24	-0.46154	-0.99496	0.499334	0.824056	0.749189	2241 tags=21%	list=14%	signal=18%
REACTOME_NUCLEOTIDE_CATABOLISM	31	-0.44523	-0.99378	0.5	0.824056	0.749189	2718 tags=26%	list=17%	signal=22%
BIOCARTA_LONGEVITY_PATHWAY	14	0.408401	0.95596	0.49848	0.824056	0.749189	2147 tags=43%	list=13%	signal=37%
REACTOME_POST_NMDA_RECEPTOR_ACTIVATION_EVENTS	16	0.393344	0.954921	0.496875	0.824056	0.749189	3069 tags=38%	list=19%	signal=30%
REACTOME_PARACETAMOL_ADME	16	0.392756	0.953493	0.496875	0.824056	0.749189	829 tags=12%	list=5%	signal=12%
REACTOME_RHOBT_GTPASE_CYCLE	34	0.340769	0.952074	0.5	0.824056	0.749189	4497 tags=53%	list=28%	signal=38%
REACTOME_SUMOYLATION_OF_SUMOYLATION_PROTEINS	33	0.339085	0.940593	0.495455	0.824056	0.749189	3167 tags=33%	list=20%	signal=27%
BIOCARTA_FAS_PATHWAY	27	0.355059	0.93793	0.5	0.824056	0.749189	4810 tags=48%	list=30%	signal=34%
REACTOME_SUMOYLATION_OF_DNA_DAMAGE_RESPONSE_AND_REPAIR_PROTEIN	72	0.298598	0.919357	0.492063	0.824056	0.749189	2674 tags=28%	list=17%	signal=23%
REACTOME_SODIUM_COUPLED_SULPHATE_DI_AND_TRI_CARBOXYLATE_TRANSPORT	3	-0.6787	-1.03377	0.50096	0.824662	0.74974	2447 tags=67%	list=15%	signal=57%
BIOCARTA_IL6_PATHWAY	21	-0.47082	-0.98766	0.501362	0.824662	0.74974	1148 tags=10%	list=7%	signal=9%
REACTOME_ERYTHROCYTES_TAKE_UP CARBON_DIOXIDE_AND_RELEASE_OXYGEN	9	0.458418	0.976211	0.502577	0.825023	0.750068	833 tags=22%	list=5%	signal=21%
REACTOME_SIGNALING_BY_FGFR3	36	0.341614	0.963337	0.502347	0.825023	0.750068	1616 tags=19%	list=10%	signal=18%
REACTOME_SIGNALING_BY_ALK	15	-0.4961	-0.98941	0.503682	0.826018	0.750973	1407 tags=27%	list=9%	signal=24%
REACTOME_CASPASE_MEDIATED_CLEAVAGE_OF_CYTOSKELETAL_PROTEINS	12	-0.50787	-0.98841	0.504518	0.826572	0.751477	2634 tags=25%	list=16%	signal=21%
BIOCARTA_HER2_PATHWAY	22	-0.47561	-1.00458	0.508108	0.831632	0.756077	2241 tags=27%	list=14%	signal=24%
REACTOME_TERMINAL_PATHWAY_OF_COMPLEMENT	4	0.570493	0.986869	0.509554	0.833176	0.757481	4543 tags=50%	list=28%	signal=36%
REACTOME_WAX_AND_PLASMALOGEN_BIOSYNTHESIS	4	-0.62865	-1.01632	0.516008	0.835108	0.759237	2018 tags=75%	list=12%	signal=66%
REACTOME_DEFENSINS	4	-0.6277	-1.01479	0.519774	0.835108	0.759237	5015 tags=75%	list=31%	signal=52%
REACTOME_FGFR2_LIGAND_BINDING_AND_ACTIVATION	8	-0.56125	-1.00891	0.512648	0.835108	0.759237	332 tags=25%	list=2%	signal=24%
REACTOME_RUNX3_REGULATES_WNT_SIGNALING	5	-0.60917	-1.00536	0.517495	0.835108	0.759237	2564 tags=40%	list=16%	signal=34%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_VENTX	5	-0.60917	-1.00536	0.517495	0.835108	0.759237	2564 tags=40%	list=16%	signal=34%
REACTOME_BIOSYNTHESIS_OF_E_SERIES_18_S_RESOLVINS	4	0.567576	0.981823	0.515924	0.835108	0.759237	4812 tags=50%	list=30%	signal=35%
REACTOME_THROMBOXANE_SIGNALING_THROUGH_TP_RECEPTOR	21	-0.4675	-0.98067	0.512262	0.835108	0.759237	594 tags=10%	list=4%	signal=9%
REACTOME_FORMATION_OF_FIBRIN_CLOT_CLOTTING_CASCADE	24	-0.45461	-0.98001	0.516644	0.835108	0.759237	2690 tags=21%	list=17%	signal=17%
REACTOME_GLUCCOGENOGENESIS	28	-0.44719	-0.97814	0.519582	0.835108	0.759237	2297 tags=18%	list=14%	signal=15%
REACTOME_NF_KB_IS_ACTIVATED_AND_SIGNALS_SURVIVAL	13	-0.4975	-0.97698	0.511312	0.835108	0.759237	1900 tags=31%	list=12%	signal=27%
REACTOME_CARGO_CONCENTRATION_IN_THE_ER	30	-0.43852	-0.97335	0.51671	0.835108	0.759237	2444 tags=47%	list=15%	signal=40%
WP_HYPOXIADEPENDENT_PROLIFERATION_OF_MYOBlasts	14	-0.48633	-0.96368	0.518574	0.835108	0.759237	2689 tags=43%	list=17%	signal=36%
REACTOME_VEGFR2_MEDIATED_CELL_PROLIFERATION	18	0.426368	0.96094	0.514793	0.835108	0.759237	3724 tags=50%	list=23%	signal=38%
REACTOME_RND3_GTPASE_CYCLE	32	0.332021	0.950443	0.517073	0.835108	0.759237	2664 tags=39%	list=17%	signal=33%
REACTOME_SUMOYLATION_OF_RNA_BINDING_PROTEINS	45	0.31594	0.934911	0.514286	0.835108	0.759237	3396 tags=29%	list=21%	signal=23%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_SMALL_RNAS	32	0.338092	0.927055	0.518868	0.835108	0.759237	2035 tags=25%	list=13%	signal=22%
REACTOME_RHO_GTPASE_CYCLE	40	0.317136	0.91603	0.519802	0.835108	0.759237	3240 tags=40%	list=20%	signal=32%
REACTOME_TRANSPORT_OF_MATURE_MRNAs_DERIVED_FROM_INTRONLESS_TRANSCRIPTS	4	0.31461	0.910183	0.515625	0.835108	0.759237	3035 tags=32%	list=19%	signal=26%
REACTOME_GRB2_SOS_PROVIDES_LINKAGE_TO_MAPK_SIGNALING_FOR_INTEGRIN	12	0.425611	0.959233	0.52071	0.835757	0.759828	1783 tags=25%	list=11%	signal=22%
REACTOME_AFLATOXIN_ACTIVATION_AND_DETOXIFICATION	8	-0.55426	-0.99633	0.527825	0.835806	0.759872	2351 tags=50%	list=15%	signal=43%
REACTOME_G_BETA_GAMMA_SIGNALING_THROUGH_PI3KGAMMA	23	-0.46268	-0.98252	0.522088	0.835806	0.759872	594 tags=9%	list=4%	signal=8%
REACTOME_SYNTHESIS_OF_LEUKOTRIENES_LT_AND_EXOINS_EX	12	-0.50177	-0.97655	0.524096	0.835806	0.759872	2359 tags=25%	list=15%	signal=21%
REACTOME_ASSEMBLY_OF_COLLAGEN_FIBRILS_AND_OTHER_MULTIMERIC_STRUCTURES	43	-0.41757	-0.96598	0.526829	0.835806	0.759872	2578 tags=30%	list=16%	signal=25%
REACTOME_AKT_PHOSPHORYLATES_TARGETS_IN_THE_NUCLEUS	10	0.436362	0.956713	0.526596	0.835806	0.759872	2629 tags=80%	list=16%	signal=67%
REACTOME_MET_RECEPTOR_RECYCLING	10	0.436031	0.955989	0.526596	0.835806	0.759872	2556 tags=40%	list=16%	signal=34%
REACTOME_SIGNAL_ATTENUATION	8	0.456309	0.954809	0.523227	0.835806	0.759872	3445 tags=50%	list=21%	signal=39%
REACTOME_ENOS_ACTIVATION	13	0.408728	0.948182	0.525074	0.835806	0.759872	2797 tags=38%	list=17%	signal=32%
REACTOME_POSTMITOTIC_NUCLEAR_PORE_COMPLEX_NPC_REFORMATION	22	0.369561	0.947498	0.526718	0.835806	0.759872	2135 tags=27%	list=13%	signal=24%
REACTOME_SUMOYLATION_OF_UBIQUITINYLATION_PROTEINS	37	0.334525	0.944117	0.52657	0.835806	0.759872	3167 tags=32%	list=20%	signal=26%
REACTOME_RHOQ_GTPASE_CYCLE	58	0.315674	0.941592	0.524476	0.835806	0.759872	1279 tags=22%	list=8%	signal=21%
REACTOME_PHOSPHOLIPID_METABOLISM	175	0.283937	0.940496	0.528302	0.835806	0.759872	2007 tags=24%	list=12%	signal=21%
REACTOME_SIGNALING_BY_TYPE_1_INSULIN_LIKE_GROWTH_FACTOR_1_RECEPTOR	38	0.326515	0.934684	0.526829	0.835806	0.759872	1735 tags=24%	list=11%	signal=21%
REACTOME_DEACTIVATION_OF_THE_BETA_CATENIN_TRANSACTIVATING_COMPLEX	31	0.333572	0.910323	0.527523	0.835806	0.759872	2147 tags=23%	list=13%	signal=20%
REACTOME_DOWNSTREAM_TCR_SIGNALING	83	0.290626	0.896109	0.528302	0.835806	0.759872	2798 tags=25%	list=17%	signal=21%
BIOCARTA_CIRCADIAN_PATHWAY	5	-0.59886	-0.98835	0.530387	0.835914	0.75997	636 tags=40%	list=4%	signal=38%
REACTOME_CHOLINE_CATABOLISM	5	-0.59854	-0.98782	0.530387	0.835914	0.75997	907 tags=40%	list=6%	signal=38%
REACTOME_INTEGRATION_OF_ENERGY_METABOLISM	69	-0.39887	-0.97365	0.530148	0.835914	0.75997	1620 tags=14%	list=10%	signal=13%
REACTOME_RA_BIOSYNTHESIS_PATHWAY	12	-0.50024	-0.97357	0.53012	0.835914	0.75997	1524 tags=25%	list=9%	signal=23%
REACTOME_MET_ACTIVATES_PTPN11	5	-0.59394	-0.98023	0.532228	0.83802	0.761884	2563 tags=60%	list=16%	signal=50%
REACTOME_METABOLISM_OF_LIPIDS	487	-0.36432	-0.99283	0.538616	0.842357	0.765828	2854 tags=23%	list=18%	signal=20%
REACTOME_DEVELOPMENTAL_BIOLOGY	325	-0.36573	-0.98526	0.542477	0.842357	0.765828	2023 tags=17%	list=13%	signal=15%
REACTOME_BIOSYNTHESIS_OF_MARESINS	3	0.605683	0.980656	0.546778	0.842357	0.765828	2372 tags=33%	list=15%	signal=28%
REACTOME_TNFR1_MEDIATED_CERAMIDE_PRODUCTION	5	-0.59126	-0.97581	0.535912	0.842357	0.765828	550 tags=60%	list=3%	signal=58%
REACTOME_FGFR1C_LIGAND_BINDING_AND_ACTIVATION	7	-0.56191	-0.97438	0.544326	0.842357	0.765828	540 tags=29%	list=3%	signal=28%
WP_COMPREHENSIVE_IL17A_SIGNALING	88	-0.38861	-0.97386	0.544248	0.842357	0.765828	2820 tags=19%	list=17%	signal=16%
REACTOME_NEGATIVE_REGULATION_OF_TCF_DEPENDENT_SIGNALING_BY_WNT1	5	-0.58988	-0.97352	0.539595	0.842357	0.765828	6625 tags=100%	list=41%	signal=59%
BIOCARTA_INSULIN_PATHWAY	22	-0.45928	-0.97008	0.540541	0.842357	0.765828	49 tags=9%	list=0%	signal=9%
BIOCARTA_CDK5_PATHWAY	11	-0.5073	-0.96984	0.547434	0.842357	0.765828	1900 tags=18%	list=12%	signal=16%
WP_ROBO4_AND_VEGF_SIGNALING_PATHWAYS_CROSSTALK	6	-0.57014	-0.96978	0.545946	0.842357	0.765828	662 tags=33%	list=4%	signal=32%
REACTOME_EGFR_TRANSACTIVATION_BY_GASTRIN	6	-0.5689	-0.96768	0.547748	0.842357	0.765828	5824 tags=83%	list=36%	signal=53%
REACTOME_MAPK_TARGETS_NUCLEAR_EVENTS_MEDIATED_BY_MAP_KINASES	28	-0.43835	-0.95881	0.544386	0.842357	0.765828	961 tags=11%	list=6%	signal=10%
WP_EXERCISEINDUCED_CIRCADIAN_REGULATION	45	-0.41152	-0.95823	0.540508	0.842357	0.765828	1499 tags=18%	list=9%	signal=16%
REACTOME_DOWNREGULATION_OF_ERBB2_ERBB3_SIGNALING	12	-0.49181	-0.95716	0.548193	0.842357	0.765828	1495 tags=17%	list=9%	signal=15%
REACTOME_REGULATION_OF_BACH1_ACTIVITY	11	0.428652	0.948981	0.543175	0.842357	0.765828	4824 tags=55%	list=30%	signal=38%
REACTOME_COMMON_PATHWAY_OF_FIBRIN_CLOT_FORMATION	12	0.418469	0.943136	0.54142	0.842357	0.765828	113 tags=8%	list=1%	signal=8%
REACTOME_INACTIVATION_OF_CSFG_G-CSF_SIGNALING	17	0.374472	0.93372	0.542208	0.842357	0.765828	1613 tags=18%	list=10%	signal=16%
REACTOME_SYNTHESIS_OF_DIPHTHAMIDE_EEF2	7	0.449955	0.928406	0.547945	0.842357	0.765828	6271 tags=71%	list=39%	signal=44%
REACTOME_NEGATIVE_REGULATION_OF_MET_ACTIVITY	21	0.363463	0.925316	0.544776	0.842357	0.765828	3031 tags=33%	list=19%	signal=27%
REACTOME_MET_ACTIVATES_PI3K_AKT_SIGNALING	6	0.472976	0.925307	0.541387	0.842357	0.765828	1087 tags=33%	list=7%	signal=31%
WP_EPO_RECEPTOR_SIGNALING	25	0.353767	0.916269	0.541322	0.842357	0.765828	3724 tags=56%	list=23%	signal=43%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_RUNX2	62	0.304919	0.912143	0.537313	0.842357	0.765828	5771 tags=42%	list=36%	signal=27%



WP_BURN_WOUND_HEALING	16	0.375641	0.911941	0.546875	0.842357	0.765828	718	tags=19%	list=4%	signal=18%
REACTOME_BUTYRATE_RESPONSE_FACTOR_1_BRF1_BINDS_AND_DESTABILIZES_M	16	0.375175	0.91081	0.546875	0.842357	0.765828	4660	tags=44%	list=29%	signal=31%
REACTOME_DAP12_INTERACTIONS	27	0.343432	0.907213	0.545833	0.842357	0.765828	1257	tags=19%	list=8%	signal=17%
REACTOME_DOWNSTREAM_SIGNALING_EVENTS_OF_B_CELL_RECEPTOR_BCR	77	0.296852	0.903727	0.537815	0.842357	0.765828	2798	tags=19%	list=17%	signal=16%
BIOCARTA_CD40_PATHWAY	13	-0.48068	-0.94395	0.54902	0.842847	0.766273	81	tags=31%	list=1%	signal=31%
REACTOME_FGFR2C_LIGAND_BINDING_AND_ACTIVATION	8	-0.53655	-0.96495	0.549747	0.843183	0.766578	540	tags=38%	list=3%	signal=36%
REACTOME_RHO_GTPASES_ACTIVATE_NADPH_OXIDASES	20	-0.45875	-0.95114	0.550765	0.843963	0.767288	78	tags=15%	list=0%	signal=15%
REACTOME_RESPIRATORY_ELECTRON_TRANSPORT	86	-0.38822	-0.96717	0.552455	0.844992	0.768223	12	tags=27%	list=0%	signal=27%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_RUNX3	76	0.29221	0.901107	0.552	0.844992	0.768223	2552	tags=25%	list=16%	signal=21%
REACTOME_TRP_CHANNELS	21	-0.4504	-0.94481	0.553134	0.845249	0.768457	4680	tags=57%	list=29%	signal=41%
REACTOME_TRANSPORT_OF_GAMMA_CARBOXYLATED_PROTEIN_PRECURSORS_FR	3	-0.64167	-0.97736	0.556622	0.84534	0.76854	5217	tags=100%	list=32%	signal=68%
BIOCARTA_CREM_PATHWAY	3	0.598273	0.968659	0.559252	0.84534	0.76854	1632	tags=33%	list=10%	signal=30%
REACTOME_COPI_MEDIATED_ANTEROGRADE_TRANSPORT	88	-0.38355	-0.9612	0.560841	0.84534	0.76854	1353	tags=11%	list=8%	signal=10%
REACTOME_VITAMIN_C_ASCORBATE_METABOLISM	7	-0.5524	-0.9579	0.558511	0.84534	0.76854	1208	tags=57%	list=7%	signal=53%
REACTOME_METAL_ION_SL_C_TRANSPORTERS	19	-0.45952	-0.9476	0.55911	0.84534	0.76854	3697	tags=74%	list=23%	signal=57%
REACTOME_G0_AND_EARLY_G1	17	-0.4688	-0.94619	0.554755	0.84534	0.76854	262	tags=41%	list=2%	signal=41%
BIOCARTA_G2_PATHWAY	22	-0.44498	-0.93988	0.559459	0.84534	0.76854	1703	tags=32%	list=11%	signal=29%
REACTOME_SEMA3A_PLEXIN_REPULSION_SIGNALING_BY_INHIBITING_INTEGRIN_A	9	0.435329	0.927042	0.559278	0.84534	0.76854	676	tags=22%	list=4%	signal=21%
REACTOME_C_TYPE_LECTIN_RECEPTORS_CLRS	107	0.287247	0.916722	0.559524	0.84534	0.76854	2852	tags=21%	list=18%	signal=18%
WP_MIR193A_AND_MVP_IN_COLON_CANCER_METASTASIS	6	0.466904	0.913429	0.55481	0.84534	0.76854	3752	tags=50%	list=23%	signal=38%
REACTOME_TCR_SIGNALING	101	0.288745	0.913101	0.555556	0.84534	0.76854	2852	tags=28%	list=18%	signal=23%
REACTOME_MRNA_DECAY_BY_5_TO_3_EXORIBONUCLEASE	14	0.389838	0.91251	0.556231	0.84534	0.76854	3529	tags=29%	list=22%	signal=22%
BIOCARTA_IGF1MTOR_PATHWAY	18	0.368009	0.909759	0.555556	0.84534	0.76854	3960	tags=61%	list=25%	signal=46%
REACTOME_COPI_INDEPENDENT_GOLGI_TO_ER_RETROGRADE_TRAFFIC	43	0.312514	0.907227	0.56044	0.84534	0.76854	4311	tags=35%	list=27%	signal=26%
REACTOME_REGULATION_OF_TP53_ACTIVITY_THROUGH_ACETYLATION	29	0.336684	0.900423	0.560345	0.84534	0.76854	2147	tags=31%	list=13%	signal=27%
REACTOME_MET_ACTIVATES_RAP1_AND_RAC1	11	0.422687	0.935776	0.562674	0.846564	0.769653	555	tags=18%	list=3%	signal=18%
BIOCARTA_CARM1_PATHWAY	11	0.422436	0.935221	0.562674	0.846564	0.769653	759	tags=18%	list=5%	signal=17%
BIOCARTA_NTH1_PATHWAY	20	-0.45525	-0.94388	0.563282	0.846711	0.769786	81	tags=20%	list=1%	signal=20%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_NP4S4	4	0.546269	0.944966	0.566879	0.847272	0.770297	2058	tags=50%	list=13%	signal=44%
REACTOME_CA_DEPENDENT_EVENTS	27	-0.43408	-0.94471	0.565617	0.847272	0.770297	1777	tags=26%	list=11%	signal=23%
REACTOME_PKA_MEDIATED_PHOSPHORYLATION_OF_CREB	17	-0.46464	-0.9378	0.564841	0.847272	0.770297	1697	tags=24%	list=11%	signal=21%
REACTOME_INITIATION_OF_NUCLEAR_ENVELOPE_NE_REFORMATION	17	-0.46426	-0.93703	0.566282	0.847272	0.770297	6117	tags=76%	list=38%	signal=48%
REACTOME_HEME_BIOSYNTHESIS	12	-0.48135	-0.93681	0.569277	0.847272	0.770297	3763	tags=42%	list=23%	signal=32%
BIOCARTA_CSK_PATHWAY	12	-0.48126	-0.93664	0.569277	0.847272	0.770297	936	tags=25%	list=6%	signal=24%
BIOCARTA_GLEEVE_C_PATHWAY	23	-0.44011	-0.93459	0.567604	0.847272	0.770297	49	tags=9%	list=0%	signal=9%
REACTOME_SYNDECAN_INTERACTIONS	13	-0.47489	-0.93259	0.568627	0.847272	0.770297	1835	tags=62%	list=11%	signal=55%
REACTOME_PROCESSING_OF_INTRONLESS_PRE_MRNAS	19	0.365512	0.914833	0.568905	0.847272	0.770297	2857	tags=37%	list=18%	signal=30%
BIOCARTA_NO2IL12_PATHWAY	7	0.442012	0.912018	0.568493	0.847272	0.770297	1613	tags=29%	list=10%	signal=26%
REACTOME_DOWNSTREAM_SIGNALING_OF_ACTIVATED_FGFR2	24	0.348704	0.907068	0.565737	0.847272	0.770297	1087	tags=17%	list=7%	signal=16%
REACTOME_SMAC_XIAP_REGULATED_APOPTOTIC_RESPONSE	5	-0.57385	-0.94707	0.570902	0.847855	0.770827	2374	tags=60%	list=15%	signal=51%
REACTOME_GAMMA_CARBOXYLATION_TRANSPORT_AND_AMINO_TERMINAL_CLE	5	-0.57176	-0.94363	0.572744	0.847855	0.770827	5217	tags=80%	list=32%	signal=54%
REACTOME_COLLAGEN_DEGRADATION	40	-0.4109	-0.93883	0.5725	0.847855	0.770827	2578	tags=40%	list=16%	signal=34%
BIOCARTA_ATM_PATHWAY	19	-0.45486	-0.938	0.571627	0.847855	0.770827	1898	tags=21%	list=12%	signal=19%
REACTOME_PROTEIN_METHYLATION	19	0.36493	0.912929	0.572438	0.847855	0.770827	1837	tags=32%	list=11%	signal=28%
REACTOME_COSTIMULATION_BY_THE_CD28_FAMILY	53	0.299213	0.906605	0.573248	0.847855	0.770827	3418	tags=34%	list=21%	signal=27%
REACTOME_ACTIVATION_OF_APC_C_AND_APC_C_CDC20_MEDIATED_DEGRADATIC	75	0.28816	0.884823	0.572581	0.847855	0.770827	5771	tags=40%	list=36%	signal=26%
BIOCARTA_CBL_PATHWAY	11	-0.48905	-0.93496	0.575428	0.848411	0.771331	2653	tags=36%	list=16%	signal=30%
WP_GDNFRET_SIGNALING_AXIS	18	-0.45383	-0.93078	0.577031	0.848411	0.771331	1728	tags=33%	list=11%	signal=30%
BIOCARTA_PLCE_PATHWAY	11	-0.48662	-0.9303	0.576983	0.848411	0.771331	936	tags=18%	list=6%	signal=17%
WP_ERBB_SIGNALING_PATHWAY	42	-0.40303	-0.92961	0.577206	0.848411	0.771331	2468	tags=21%	list=15%	signal=18%
REACTOME_SHC_MEDIATED_CASCADE_FGFR4	12	-0.47712	-0.92858	0.575301	0.848411	0.771331	540	tags=33%	list=3%	signal=32%
REACTOME_MAPK3_ERK1_ACTIVATION	8	0.432148	0.904252	0.574572	0.848411	0.771331	2717	tags=50%	list=17%	signal=42%
REACTOME_REGULATION_OF_TP53_ACTIVITY_THROUGH_METHYLATION	18	0.362511	0.896168	0.576389	0.848411	0.771331	1338	tags=22%	list=8%	signal=20%
REACTOME_GLYCOLYSIS	56	0.306035	0.907953	0.581081	0.85335	0.775822	2035	tags=21%	list=13%	signal=19%
REACTOME_P75_NTR_RECEPTOR_MEDIATED_SIGNALLING	84	-0.3823	-0.95085	0.58194	0.85371	0.776149	2631	tags=20%	list=16%	signal=17%
REACTOME_PHASE_II_CONJUGATION_OF_COMPOUNDS	64	-0.3888	-0.94549	0.583716	0.85371	0.776149	2351	tags=23%	list=15%	signal=20%
REACTOME_FGFR3_LIGAND_BINDING_AND_ACTIVATION	10	-0.49306	-0.92148	0.583067	0.85371	0.776149	540	tags=40%	list=3%	signal=39%
REACTOME_SYNTHESIS_OF_PROSTAGLANDINS_PG_AND_THROMBOXANES_TX	10	-0.49142	-0.91841	0.583067	0.85371	0.776149	4093	tags=60%	list=25%	signal=45%
REACTOME_FGFR2_ALTERNATIVE_SPLICING	17	0.35647	0.888834	0.584416	0.85371	0.776149	5442	tags=53%	list=34%	signal=35%
REACTOME_REGULATION_OF_NF_KAPPA_B_SIGNALING	16	0.361225	0.876495	0.584375	0.85371	0.776149	2939	tags=25%	list=18%	signal=20%
REACTOME_BETA_OXIDATION_OF_VERY_LONG_CHAIN_FATTY_ACIDS	11	0.411812	0.911701	0.584958	0.853751	0.776186	4434	tags=45%	list=27%	signal=33%
REACTOME_ANTIGEN_PROCESSING_UBIQUITINATION_PROTEASOME_DEGRADATIC	283	0.268412	0.955143	0.588499	0.854423	0.776798	4484	tags=37%	list=28%	signal=27%
WP_G_PROTEIN_SIGNALING_PATHWAYS	84	-0.38081	-0.94715	0.589744	0.854423	0.776798	1777	tags=17%	list=11%	signal=15%
REACTOME_PTK6_REGULATES_PROTEINS_INVOLVED_IN_RNA_PROCESSING	4	0.538715	0.931898	0.590234	0.854423	0.776798	3513	tags=50%	list=22%	signal=39%
BIOCARTA_GPCR_PATHWAY	28	-0.42312	-0.92551	0.587467	0.854423	0.776798	936	tags=7%	list=6%	signal=7%
REACTOME_KERATAN_SULFATE_BIOSYNTHESIS	26	-0.42503	-0.92388	0.591088	0.854423	0.776798	3575	tags=54%	list=22%	signal=42%
REACTOME_GDP_FUCOSE_BIOSYNTHESIS	6	-0.5407	-0.91971	0.590991	0.854423	0.776798	610	tags=4%	list=4%	signal=32%
REACTOME_DISSOLUTION_OF_FIBRIN_CLOT	10	-0.48923	-0.91432	0.586262	0.854423	0.776798	2970	tags=50%	list=18%	signal=41%
REACTOME_RIBAVIRIN_ADME	10	-0.48745	-0.911	0.591054	0.854423	0.776798	2249	tags=20%	list=14%	signal=17%
REACTOME_L1CAM_INTERACTIONS	62	0.29901	0.894468	0.589552	0.854423	0.776798	3575	tags=37%	list=22%	signal=29%
BIOCARTA_RHO_PATHWAY	20	0.346387	0.888892	0.586572	0.854423	0.776798	2643	tags=35%	list=16%	signal=29%
REACTOME_PKMTS_METHYLATE_HISTONE_LYSINES	50	0.292538	0.882831	0.588235	0.854423	0.776798	4182	tags=42%	list=26%	signal=31%
REACTOME_TRANSPORT_OF_MATURE_TRANSCRIPT_TO_CYTOPLASM	76	0.28452	0.877393	0.592	0.854997	0.777319	5309	tags=50%	list=33%	signal=34%
WP_ALANINE_AND_ASPARTATE_METABOLISM	13	0.382254	0.886766	0.59292	0.855538	0.777811	1421	tags=31%	list=9%	signal=28%
BIOCARTA KERATINOCYTE_PATHWAY	43	0.301711	0.875864	0.593407	0.855538	0.777811	1282	tags=19%	list=8%	signal=17%
REACTOME_NEGATIVE_REGULATION_OF_THE_PI3K_AKT_NETWORK	92	-0.37484	-0.94067	0.595558	0.857925	0.779981	2933	tags=25%	list=18%	signal=21%
REACTOME_NCAM1_INTERACTIONS	16	-0.45374	-0.91396	0.596774	0.858154	0.78019	1091	tags=31%	list=7%	signal=29%
WP_ACETYLCHOLINE_SYNTHESIS	6	-0.53669	-0.9129	0.596396	0.858154	0.78019	669	tags=33%	list=4%	signal=32%
REACTOME_COPI_DEPENDENT_GOLGI_TO_ER_RETROGRADE_TRAFFIC	90	-0.37501	-0.94147	0.598895	0.858735	0.780718	1360	tags=11%	list=8%	signal=10%
REACTOME_RESPIRATORY_ELECTRON_TRANSPORT_ATP_SYNTHESIS_BY_CHEMIOSM	93	-0.374	-0.94064	0.601322	0.858735	0.780718	1718	tags=28%	list=11%	signal=25%
REACTOME_SIGNAL_TRANSDUCTION_BY_L1	19	-0.44345	-0.91447	0.598053	0.858735	0.780718	1053	tags=32%	list=7%	signal=30%
WP_GLYCEROLIPIDS_AND_GLYCEROPHOSPHOLIPIDS	22	-0.43167	-0.91176	0.6	0.858735	0.780718	2334	tags=36%	list=14%	signal=31%
REACTOME_OTHER_INTERLEUKIN_SIGNALING	15	-0.45604	-0.90951	0.600884	0.858735	0.780718	1294	tags=40%	list=8%	signal=37%
REACTOME_ACYL_CHAIN_REMODELING_OF_DAG_AND_TAG	6	-0.53459	-0.90931	0.6	0.858735	0.780718	444	tags=33%	list=3%	signal=32%
BIOCARTA_SAM68_PATHWAY	6	0.453211	0.88664	0.599553	0.858735	0.780718	3724	tags=50%	list=23%	signal=38%
BIOCARTA_MTA3_PATHWAY	19	0.348381	0.871528	0.600707	0.858735	0.780718	4311	tags=37%	list=27%	signal=27%
REACTOME_FCFR1_MEDIATED_CA_2_MOBILIZATION	25	0.336768	0.872241	0.603306	0.860827	0.78262	1254	tags=12%	list=8%	signal=11%
REACTOME_PI_3K_CASCADE_FGFR4	13	0.376041	0.872353	0.60472	0.862103	0.783779	1087	tags=23%	list=7%	signal=22%
REACTOME_COPII_MEDIATED_VESICLE_TRANSPORT	65	0.292611	0.882516	0.606061	0.863272	0.784842	1075	tags=15%	list=7%	signal=14%
BIOCARTA_TCAPOPTOSIS_PATHWAY	3	-0.61049	-0.92987	0.608445	0.865925	0.787254	3453	tags=67%	list=21%	signal=52%
REACTOME_PROCESSING_OF_DNA_DOUBLE_STRAND_BREAK_ENDS	69	0.287392	0.866256	0.609756	0.867046	0.788274	4710	tags=38%	list=29%	signal=27%
REACTOME_ZINC_INFUX INTO_CELLS_BY_THE_SL3C9_GENE_FAMILY	8	0.421034	0.880997	0.611247	0.868421	0.789524	55	tags=12%	list=0%	signal=12%
REACTOME_RHO_GTPASE_CYCLE	411	0.267473	1.017387	0.618839	0.870259	0.791195	1324	tags=18%	list=8%	signal=17%
REACTOME_ACTIVATION_OF_KAINATE_RECEPTORS_UPON GLUTAMATE_BINDING	30	-0.40769	-0.90494	0.616967	0.870259	0.791195	1201	tags=17%	list=7%	signal=15%
REACTOME_CLASS_I_PEROXISOMAL_MEMBRANE_PROTEIN_IMPORT	19	-0.4377	-0.90261	0.613352	0.870259	0.791195	3328	tags=32%	list=21%	signal=25%
REACTOME_GLUKAGON LIKE PEPTIDE_1_GLP1_REGULATES_INSULIN_SECRETION	29	-0.40774	-0.89788	0.616883	0.870259	0.791195	1620	tags=10%	list=10%	signal=9%
REACTOME_TRAFFICKING_OF_AMPA_RECEPTORS	29	-0.40683								



WP_BDNF_PATHWAY	14	-0.45144	-0.89454	0.616642	0.870259	0.791195	1900	tags=29%	list=12%	signal=25%
REACTOME_SYNTHESIS_OF_PI	5	0.489587	0.893871	0.618736	0.870259	0.791195	1127	tags=60%	list=7%	signal=56%
BIOCARTA_RNA_PATHWAY	9	-0.48219	-0.88759	0.617264	0.870259	0.791195	3202	tags=56%	list=20%	signal=45%
REACTOME_CASPASE_ACTIVATION_VIA_DEATH_RECEPTORS_IN_THE_PRESENCE_OF	14	0.375624	0.879238	0.613982	0.870259	0.791195	1531	tags=14%	list=9%	signal=13%
REACTOME_RHO_GTPASES_ACTIVATE_RHOTEKIN_AND_RHOPHILINS	6	0.442171	0.865042	0.61745	0.870259	0.791195	5940	tags=83%	list=37%	signal=53%
BIOCARTA_TNFR1_PATHWAY	27	0.321904	0.850346	0.616667	0.870259	0.791195	4622	tags=41%	list=29%	signal=29%
WP_PEROXIREDOXIN_2_INDUCED_OVARIAN_FAILURE	6	0.440759	0.862279	0.619687	0.870712	0.791607	7292	tags=67%	list=45%	signal=37%
REACTOME_PYROPTOSIS	16	0.355276	0.862503	0.621875	0.873047	0.79373	4392	tags=38%	list=27%	signal=27%
REACTOME_SUMOYLATION_OF_IMMUNE_RESPONSE_PROTEINS	11	0.397605	0.880247	0.623955	0.875227	0.795711	3167	tags=45%	list=20%	signal=37%
REACTOME_CA2_PATHWAY	42	-0.39319	-0.9069	0.627451	0.875601	0.796052	2936	tags=19%	list=18%	signal=16%
REACTOME_P75NTR_SIGNALS_VIA_NF_KB	16	-0.44342	-0.89318	0.6261	0.875601	0.796052	1900	tags=25%	list=12%	signal=22%
BIOCARTA_TPO_PATHWAY	25	-0.40916	-0.88742	0.627632	0.875601	0.796052	49	tags=8%	list=0%	signal=8%
BIOCARTA_CYTOKINE_PATHWAY	5	0.484502	0.884588	0.625272	0.875601	0.796052	5152	tags=40%	list=32%	signal=27%
WP_EICOSANOID_LIPID_SYNTHESIS_MAP	9	-0.47963	-0.88288	0.627036	0.875601	0.796052	2489	tags=33%	list=15%	signal=28%
BIOCARTA_NFKB_PATHWAY	20	0.335151	0.860058	0.628975	0.875601	0.796052	2308	tags=30%	list=14%	signal=26%
REACTOME_GLUTAMATE_AND_GLUTAMINE_METABOLISM	12	0.381253	0.859261	0.627219	0.875601	0.796052	4083	tags=58%	list=25%	signal=44%
BIOCARTA_EDG1_PATHWAY	20	0.334148	0.857486	0.628975	0.875601	0.796052	3358	tags=45%	list=21%	signal=36%
REACTOME_MET_ACTIVATES_PTK2_SIGNALING	20	0.333021	0.854594	0.628975	0.875601	0.796052	1783	tags=35%	list=11%	signal=31%
REACTOME_MITOTIC_PROMETAPHASE	185	0.312251	1.010976	0.630173	0.876533	0.796899	5001	tags=39%	list=31%	signal=27%
REACTOME_DARPP_32_EVENTS	17	-0.43883	-0.88571	0.634006	0.878834	0.798991	936	tags=24%	list=6%	signal=22%
BIOCARTA_SRCRPTP_PATHWAY	10	0.401968	0.881306	0.635638	0.878834	0.798991	4401	tags=40%	list=27%	signal=29%
REACTOME_SHC_MEDIATED_CASCADE_FGFR3	14	-0.44406	-0.87992	0.634473	0.878834	0.798991	540	tags=36%	list=3%	signal=35%
REACTOME_RUNX3_REGULATES_NOTCH_SIGNALING	9	0.412939	0.879361	0.636598	0.878834	0.798991	1773	tags=33%	list=11%	signal=30%
REACTOME_BIOSYNTHESIS_OF_SPECIALIZED_PRORESOLVING_MEDIATORS_SPMs	11	-0.45763	-0.87489	0.636081	0.878834	0.798991	2927	tags=27%	list=18%	signal=22%
REACTOME_HEDGEHOG_OFF_STATE	102	0.275438	0.870846	0.636364	0.878834	0.798991	2552	tags=22%	list=16%	signal=18%
REACTOME_SEROTONIN_NEUROTRANSMITTER_RELEASE_CYCLE	18	0.346547	0.856702	0.635417	0.878834	0.798991	2869	tags=44%	list=18%	signal=37%
REACTOME_SIGNALING_BY_CSF3_G_CSF	21	0.33616	0.855807	0.634328	0.878834	0.798991	2303	tags=19%	list=14%	signal=16%
REACTOME_HEDGEHOG_ON_STATE	79	0.275618	0.846744	0.635593	0.878834	0.798991	2552	tags=27%	list=16%	signal=22%
WP_FOCAL_ADHESION_P13KAKTMTOR_SIGNALING_PATHWAY	274	-0.35134	-0.93934	0.63843	0.879167	0.799293	2270	tags=16%	list=14%	signal=14%
BIOCARTA_BARR_MAPK_PATHWAY	14	-0.44277	-0.87738	0.637444	0.879167	0.799293	183	tags=14%	list=1%	signal=14%
REACTOME_POST_TRANSCRIPTIONAL_SILENCING_BY_SMALL_RNAS	7	-0.49684	-0.86155	0.638298	0.879167	0.799293	2442	tags=57%	list=15%	signal=49%
REACTOME_BIOLOGICAL_OXIDATIONS	127	-0.35794	-0.92213	0.642015	0.879209	0.799332	2229	tags=19%	list=14%	signal=16%
BIOCARTA_RANMIS_PATHWAY	9	0.412163	0.87771	0.639175	0.879209	0.799332	2135	tags=22%	list=13%	signal=19%
BIOCARTA_EIF2_PATHWAY	9	0.411467	0.876227	0.641753	0.879209	0.799332	5741	tags=78%	list=36%	signal=50%
WP_IRON_HOMEOSTASIS	10	-0.46323	-0.86572	0.642173	0.879209	0.799332	351	tags=30%	list=2%	signal=29%
REACTOME_SNRNP_ASSEMBLY	48	0.292046	0.865326	0.641618	0.879209	0.799332	5768	tags=52%	list=36%	signal=34%
REACTOME_PI_3K_CASCADE_FGFR3	15	0.3567	0.849885	0.640867	0.879209	0.799332	1087	tags=20%	list=7%	signal=19%
REACTOME_NCAM_SIGNALING_FOR_NEURITE_OUT_GROWTH	33	0.304332	0.84419	0.640909	0.879209	0.799332	905	tags=21%	list=6%	signal=20%
REACTOME_INTRINSIC_PATHWAY_OF_FIBRIN_CLOT_FORMATION	14	-0.43938	-0.87064	0.643388	0.880146	0.800184	2690	tags=50%	list=17%	signal=42%
REACTOME_DRUG_ADME	55	-0.37071	-0.88793	0.645614	0.881736	0.801629	2351	tags=16%	list=15%	signal=14%
BIOCARTA_TNFR2_PATHWAY	17	-0.43302	-0.87399	0.645533	0.881736	0.801629	1715	tags=18%	list=11%	signal=16%
REACTOME_PROTEIN_REPAIR	6	-0.50456	-0.85824	0.646847	0.882256	0.802102	1081	tags=33%	list=7%	signal=31%
REACTOME_METALLOPROTEASE_DUBS	23	0.331328	0.856199	0.647059	0.882256	0.802102	4723	tags=39%	list=29%	signal=28%
REACTOME_HORMONE_LIGAND_BINDING_RECEPTORS	3	-0.58625	-0.89296	0.648752	0.882388	0.802222	5420	tags=100%	list=34%	signal=66%
REACTOME_EGFR_INTERACTS_WITH_PHOSPHOLIPASE_C_GAMMA	5	-0.53566	-0.88405	0.64825	0.882388	0.802222	2241	tags=40%	list=14%	signal=34%
REACTOME_BIOTIN_TRANSPORT_AND_METABOLISM	11	-0.45268	-0.86542	0.648523	0.882388	0.802222	2537	tags=27%	list=16%	signal=23%
REACTOME_MITOCHONDRIAL_UNCOUPLING	5	-0.53046	-0.87546	0.651934	0.882671	0.802479	1718	tags=60%	list=11%	signal=54%
REACTOME_DOWNSTREAM_SIGNALING_OF_ACTIVATED_FGFR1	26	-0.40026	-0.87004	0.652687	0.882671	0.802479	1248	tags=19%	list=8%	signal=18%
REACTOME_CHROMOSOME_MAINTENANCE	94	0.280762	0.867792	0.652174	0.882671	0.802479	4523	tags=28%	list=28%	signal=20%
REACTOME_TRAFFICKING_OF_GLU2R_CONTAINING_AMPA_RECEPTORS	16	-0.42969	-0.86552	0.652493	0.882671	0.802479	2044	tags=38%	list=13%	signal=33%
REACTOME_IRAK2_MEDIATED_ACTIVATION_OF_TAK1_COMPLEX	10	0.391347	0.858019	0.651596	0.882671	0.802479	4744	tags=50%	list=29%	signal=35%
REACTOME_PYRIMIDINE_CATABOLISM	10	-0.45865	-0.85718	0.65016	0.882671	0.802479	1474	tags=50%	list=9%	signal=45%
REACTOME_INTERLEUKIN_1_PROCESSING	6	0.425543	0.832512	0.651007	0.882671	0.802479	1320	tags=17%	list=8%	signal=15%
WP_NEURAL_CRESCENT_DIFFERENTIATION	76	-0.36682	-0.89621	0.653364	0.882866	0.802657	2028	tags=20%	list=13%	signal=17%
REACTOME_BETA_DEFENSINS	3	-0.58235	-0.88701	0.654511	0.883696	0.803411	5015	tags=100%	list=31%	signal=69%
REACTOME_PROTEIN_UBIQUITINATION	62	0.288928	0.86431	0.656716	0.884266	0.803929	4958	tags=42%	list=31%	signal=29%
REACTOME_G_PROTEIN_BETA_GAMMA_SIGNALLING	30	-0.38925	-0.864	0.658098	0.884266	0.803929	594	tags=10%	list=4%	signal=10%
REACTOME_OAS_ANTIVIRAL_RESPONSE	5	0.472433	0.862551	0.657952	0.884266	0.803929	2528	tags=20%	list=16%	signal=17%
REACTOME_TNF_RECEPTOR_SUPERFAMILY_TNFSF_MEMBERS_MEDIATING_NON_C	14	-0.43394	-0.85988	0.656761	0.884266	0.803929	3202	tags=36%	list=20%	signal=29%
REACTOME_HYALURONAN_UPTAKE_AND_DEGRADATION	12	-0.43656	-0.84964	0.658133	0.884266	0.803929	3535	tags=33%	list=22%	signal=26%
REACTOME_HDACs_DEACETYLATE_HISTONES	21	0.331925	0.845025	0.656716	0.884266	0.803929	1477	tags=29%	list=9%	signal=26%
WP_DELTANOTCH_SIGNALING_PATHWAY	80	-0.35982	-0.89053	0.659193	0.884973	0.804572	2496	tags=28%	list=15%	signal=23%
BIOCARTA_EGF_PATHWAY	28	-0.39839	-0.87142	0.660574	0.885009	0.804605	49	tags=11%	list=0%	signal=11%
BIOCARTA_PARKIN_PATHWAY	8	-0.4747	-0.85332	0.661046	0.885009	0.804605	374	tags=25%	list=2%	signal=24%
REACTOME_ZINC_TRANSPORTERS	10	-0.45536	-0.85102	0.661342	0.885009	0.804605	3084	tags=70%	list=19%	signal=57%
REACTOME_DNA_DAMAGE_TELOMERE_STRESS_INDUCED_SENESCENCE	24	0.320591	0.833938	0.661355	0.885009	0.804605	4710	tags=46%	list=29%	signal=33%
REACTOME_P13K_EVENTS_IN_ERBB4_SIGNALING	6	-0.49642	-0.84439	0.664865	0.888272	0.807572	1767	tags=33%	list=11%	signal=30%
REACTOME_CAM_PDE_1_ACTIVATION	6	-0.49635	-0.84428	0.664865	0.888272	0.807572	720	tags=33%	list=4%	signal=32%
REACTOME_CREATINE_METABOLISM	8	-0.47133	-0.84726	0.666105	0.889212	0.808426	765	tags=50%	list=5%	signal=48%
REACTOME_RHOD_GTPASE_CYCLE	51	-0.37136	-0.87795	0.671053	0.890012	0.809154	1250	tags=14%	list=8%	signal=13%
REACTOME_SYNTHESIS_OF_EPOXY_EET_AND_DIHYDROXYEICOSATRIENOIC_ACIDS	3	-0.56665	-0.86311	0.671785	0.890012	0.809154	1489	tags=67%	list=9%	signal=61%
WP_PPAR_SIGNALING_PATHWAY	54	0.285266	0.862718	0.670968	0.890012	0.809154	2943	tags=31%	list=18%	signal=26%
BIOCARTA_NUCLEARIS_PATHWAY	17	-0.42396	-0.85569	0.670029	0.890012	0.809154	505	tags=35%	list=3%	signal=34%
WP_NUCLEAR_RECEPTORS_IN_LIPID_METABOLISM_AND_TOXICITY	17	-0.42395	-0.85568	0.670029	0.890012	0.809154	505	tags=35%	list=3%	signal=34%
REACTOME_DOWNREGULATION_OF_ERBB4_SIGNALING	9	0.39953	0.850807	0.667526	0.890012	0.809154	1977	tags=33%	list=12%	signal=29%
BIOCARTA_DNAFRAGMENT_PATHWAY	9	0.399133	0.849962	0.670103	0.890012	0.809154	3744	tags=22%	list=23%	signal=17%
REACTOME_INCRETIN_SYNTHESIS_SECRETION_AND_INACTIVATION	4	0.481799	0.833442	0.66879	0.890012	0.809154	5322	tags=75%	list=33%	signal=50%
REACTOME_ERYTHROCYTES_TAKE_UP_OXYGEN_AND_RELEASE CARBON DIOXIDE	6	-0.48962	-0.83282	0.672072	0.890012	0.809154	5258	tags=67%	list=33%	signal=45%
REACTOME_DISASSEMBLY_OF_THE_DESTRUCTION_COMPLEX_AND_RECRUITMENT	26	0.315125	0.822465	0.669456	0.890012	0.809154	5694	tags=58%	list=35%	signal=37%
BIOCARTA_WNT_PATHWAY	21	-0.40436	-0.84824	0.673025	0.890562	0.809654	91	tags=10%	list=1%	signal=9%
WP_MICROGLIA_PATHOGEN_PHAGOCYTOSIS_PATHWAY	39	-0.38491	-0.87602	0.675031	0.891794	0.810774	2858	tags=23%	list=18%	signal=19%
WP_HEART_DEVELOPMENT	30	-0.38319	-0.85054	0.674807	0.891794	0.810774	4015	tags=40%	list=25%	signal=30%
REACTOME_IL_6_TYPE_CYTOKINE_RECEPTOR_LIGAND_INTERACTIONS	13	-0.4297	-0.84385	0.675716	0.891989	0.81095	1148	tags=23%	list=7%	signal=21%
BIOCARTA_P53_PATHWAY	15	-0.42742	-0.85244	0.677467	0.893588	0.812404	4305	tags=60%	list=27%	signal=44%
REACTOME_APOPTOTIC_CLEAVAGE_OF_CELLULAR_PROTEINS	34	-0.38355	-0.85896	0.679028	0.893801	0.812598	1777	tags=18%	list=11%	signal=16%
REACTOME_ASSEMBLY_OF_THE_PRE_REPLICATIVE_COMPLEX	81	0.273177	0.830906	0.679245	0.893801	0.812598	2680	tags=19%	list=17%	signal=16%
REACTOME_PI_3K_CASCADE_FGFR1	17	0.329978	0.822778	0.678571	0.893801	0.812598	1087	tags=18%	list=7%	signal=16%
REACTOME_FRS_MEDIATED_FGFR4_SIGNALING	14	-0.42167	-0.83555	0.680535	0.894078	0.81285	540	tags=29%	list=3%	signal=28%
BIOCARTA_HES_PATHWAY	10	-0.44408	-0.82994	0.680511	0.894078	0.81285	1454	tags=40%	list=9%	signal=36%
REACTOME_STABILIZATION_OF_P53	54	0.280628	0.84869	0.683871	0.89633	0.814898	2552	tags=19%	list=16%	signal=16%
WP_NODLIKE_RECEPTOR_NLR_SIGNALING_PATHWAY	9	0.392105	0.834995	0.68299	0.89633	0.814898	4061	tags=33%	list=25%	signal=25%
REACTOME_OVARIAN_TUMOR_DOMAIN_PROTEASES	31	0.29973	0.81797	0.683486	0.89633	0.814898	2709	tags=26%	list=17%	signal=22%
REACTOME_INTERLEUKIN_35_SIGNALING	6	0.409552	0.801227	0.684564	0.89653	0.815079	2293	tags=50%	list=14%	signal=43%
REACTOME_NITRIC_OXIDE_STIMULATES_GUANYLATE_CYCLASE	13	-0.42488	-0.83438	0.686275	0.898061	0.816471	1026	tags=15%	list=6%	signal=14%
BIOCARTA_TCR_PATHWAY	37	-0.37993	-0.86201	0.68805	0.899675	0.817938	49	tags=5%	list=0%	signal=5%
REACTOME_OLFACTORY_SIGNALING_PATHWAY	4	-0.51726	-0.83625	0.689266	0.899844	0.818092	1235	tags=50%	list=8%	signal=46%
REACTOME_ILAMININ_PROCESSING	10	0.371025	0.81346							



WP_AFLATOXIN_B1_METABOLISM	4	-0.51586	-0.83397	0.691149	0.900884	0.819038	1371 tags=50%	list=8%	signal=46%
BIOCARTA_TUBBY_PATHWAY	5	-0.50705	-0.83683	0.692449	0.901163	0.819291	1439 tags=40%	list=9%	signal=36%
REACTOME_MITOCHONDRIAL_CALCIIUM_ION_TRANSPORT	16	-0.41392	-0.83375	0.692082	0.901163	0.819291	3915 tags=31%	list=24%	signal=24%
REACTOME_VITAMIN_B2_RIBOFLAVIN_METABOLISM	6	-0.47808	-0.8132	0.693694	0.902074	0.820119	3253 tags=50%	list=20%	signal=40%
REACTOME_PHOSPHOLIPASE_C_MEDIATED_CASCADE_FGFR4	8	-0.45347	-0.81516	0.694772	0.902768	0.820751	540 tags=25%	list=3%	signal=24%
REACTOME_BUTYROPHILIN_BTN_MJTN_INTERACTIONS	3	0.521967	0.845112	0.696466	0.90329	0.821225	2738 tags=33%	list=17%	signal=28%
REACTOME_CONVERSION_FROM_APC_C_CDC20_TO_APC_C_CDH1_IN_LATE_ANAP	20	0.316258	0.811576	0.696113	0.90329	0.821225	5175 tags=40%	list=32%	signal=27%
BIOCARTA_HSW1_SNF_PATHWAY	10	0.366265	0.803027	0.696809	0.90329	0.821225	5692 tags=50%	list=35%	signal=32%
REACTOME_INNATE_IMMUNE_SYSTEM	760	-0.34371	-0.83159	0.703704	0.905152	0.822918	2987 tags=19%	list=19%	signal=17%
REACTOME_DEGRADATION_OF_THE_EXTRACELLULAR_MATRIX	82	-0.35096	-0.87159	0.703456	0.905152	0.822918	2295 tags=30%	list=14%	signal=26%
REACTOME_G_PROTEIN_MEDIATED_EVENTS	38	-0.37942	-0.86148	0.70138	0.905152	0.822918	1777 tags=21%	list=11%	signal=19%
BIOCARTA_BARRESTIN_SRC_PATHWAY	17	-0.41202	-0.83159	0.698847	0.905152	0.822918	183 tags=12%	list=1%	signal=12%
REACTOME_AZATHIOPRINE_ADME	19	-0.40089	-0.82671	0.699583	0.905152	0.822918	1346 tags=21%	list=8%	signal=19%
BIOCARTA_LIS1_PATHWAY	14	-0.41241	-0.81721	0.702823	0.905152	0.822918	2199 tags=21%	list=14%	signal=19%
REACTOME_SMAD2_SMAD3_SMAD4_HETEROTRIMER_REGULATES_TRANSCRIPTION	25	0.312418	0.809174	0.702479	0.905152	0.822918	3313 tags=36%	list=21%	signal=29%
REACTOME_TGF_BETA_RECEPTOR_SIGNALING_IN_EMT_EPITHELIAL_TO_MESENCH	15	0.337997	0.805324	0.702786	0.905152	0.822918	2133 tags=27%	list=13%	signal=23%
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_CELL_DEATH_GENES	15	0.335743	0.799954	0.702786	0.905152	0.822918	2684 tags=20%	list=17%	signal=17%
REACTOME_TRAIL_SIGNALING	5	0.437512	0.798795	0.703704	0.905152	0.822918	1531 tags=20%	list=9%	signal=18%
REACTOME_PHASE_I_FUNCTIONALIZATION_OF_COMPOUNDS	60	-0.34667	-0.83891	0.704258	0.905162	0.822927	1945 tags=13%	list=12%	signal=12%
REACTOME_VEGF_LIGAND_RECEPTOR_INTERACTIONS	8	-0.44701	-0.80354	0.70489	0.905274	0.823028	3376 tags=38%	list=21%	signal=30%
REACTOME_AMPK_INHIBITS_CHREBP_TRANSCRIPTIONAL_ACTIVATION_ACTIVITY	5	0.36415	0.796791	0.705882	0.905846	0.823549	626 tags=20%	list=4%	signal=19%
REACTOME_FC_EPSILON_RECEPTOR_FCR1_SIGNALING	115	0.270447	0.851724	0.708333	0.907586	0.825131	2798 tags=23%	list=17%	signal=20%
REACTOME_SHC_MEDIATED_CASCADE_FGFR1	16	-0.4007	-0.80713	0.708211	0.907586	0.825131	540 tags=50%	list=3%	signal=48%
REACTOME_TNF_SIGNALING	56	0.280646	0.832627	0.709459	0.908327	0.825804	2692 tags=23%	list=17%	signal=19%
REACTOME_SIGNALING_BY_INSULIN_RECEPTOR	61	-0.34438	-0.83393	0.714286	0.910067	0.827386	2917 tags=21%	list=18%	signal=18%
REACTOME_THE_ROLE_OF_GTS1E1_IN_G2_M_PROGRESSION_AFTER_G2_CHECKPOINT	69	0.273917	0.82564	0.715447	0.910067	0.827386	2552 tags=17%	list=16%	signal=15%
BIOCARTA_PDGF_PATHWAY	29	-0.37257	-0.82043	0.714286	0.910067	0.827386	49 tags=7%	list=0%	signal=7%
REACTOME_NON_INTEGRIN_MEMBRANE_ECM_INTERACTIONS	29	-0.37152	-0.81813	0.715584	0.910067	0.827386	1845 tags=21%	list=11%	signal=18%
REACTOME_N_GLYCAN_TRIMMING_IN_THE_ER_AND_CALNEXIN_CALRETICULIN_C	15	-0.40899	-0.81569	0.715758	0.910067	0.827386	3111 tags=33%	list=19%	signal=27%
REACTOME_REGULATION_OF_PTEN_LOCALIZATION	9	0.380361	0.809987	0.713918	0.910067	0.827386	2250 tags=22%	list=14%	signal=19%
WP_MITOCHONDRIAL_LONG_CHAIN_FATTY_ACID_BETAOXIDATION	16	-0.39906	-0.80383	0.71261	0.910067	0.827386	1233 tags=12%	list=8%	signal=12%
REACTOME_HYALURONAN_BIOSYNTHESIS_AND_EXPORT	5	0.43022	0.785481	0.714597	0.910067	0.827386	2914 tags=40%	list=18%	signal=33%
WP_ACE_INHIBITOR_PATHWAY	6	0.395956	0.774638	0.711409	0.910067	0.827386	718 tags=17%	list=4%	signal=16%
BIOCARTA_AKAP13_PATHWAY	9	-0.43187	-0.79496	0.716612	0.910455	0.827739	1837 tags=22%	list=11%	signal=20%
BIOCARTA_FCR11_PATHWAY	36	-0.37094	-0.83658	0.718631	0.910507	0.827787	49 tags=6%	list=0%	signal=6%
REACTOME_LYSOSOME_VESICLE_BIOGENESIS	34	-0.36878	-0.82587	0.719949	0.910507	0.827787	1435 tags=15%	list=9%	signal=13%
REACTOME_SYNTHESIS_OF_16_20_HYDROXYEICOSATETRAENOIC_ACIDS_HETE	3	-0.53049	-0.80803	0.71977	0.910507	0.827787	1449 tags=33%	list=9%	signal=30%
REACTOME_REGULATION_OF_TLR_BY_ENDOGENOUS_LIGAND	14	-0.40636	-0.80521	0.719168	0.910507	0.827787	6759 tags=71%	list=42%	signal=42%
REACTOME_REPRESSION_OF_WNT_TARGET_GENES	10	0.361929	0.793521	0.718085	0.910507	0.827787	935 tags=30%	list=6%	signal=28%
REACTOME_SYNTHESIS_OF_BILE_ACIDS_AND_BILE_SALTS_VIA_27_HYDROXYCHOLE	9	-0.42876	-0.78924	0.718241	0.910507	0.827787	277 tags=22%	list=2%	signal=22%
REACTOME_METABOLISM_OF_VITAMINS_AND_COFACTORS	152	-0.33949	-0.88568	0.726027	0.911877	0.829032	2538 tags=16%	list=16%	signal=14%
WP_OXIDATIVE_STRESS_AND_REDOX_PATHWAY	75	-0.34589	-0.84458	0.728929	0.911877	0.829032	3566 tags=31%	list=22%	signal=24%
REACTOME_RND1_GTPASE_CYCLE	40	0.280431	0.810009	0.727723	0.911877	0.829032	1488 tags=22%	list=9%	signal=20%
REACTOME_PLATELET_AGGREGATION_PLUG_FORMATION	32	0.294472	0.807448	0.721698	0.911877	0.829032	2781 tags=28%	list=17%	signal=23%
BIOCARTA_PEP1_PATHWAY	3	-0.52893	-0.80565	0.723608	0.911877	0.829032	2002 tags=67%	list=12%	signal=58%
REACTOME_ACTIVATION_OF_BH3_ONLY_PROTEINS	18	0.32392	0.800766	0.729167	0.911877	0.829032	4268 tags=44%	list=26%	signal=33%
REACTOME_RHO_GTPASES_ACTIVATE_IQGAPS	25	0.308455	0.798908	0.727273	0.911877	0.829032	2280 tags=20%	list=14%	signal=17%
REACTOME_P75NTR_RECRUITS_SIGNALING_COMPLEXES	13	-0.40662	-0.79852	0.723982	0.911877	0.829032	1900 tags=23%	list=12%	signal=20%
REACTOME_FRS_MEDIATED_FGFR3_SIGNALING	16	-0.39521	-0.79606	0.722874	0.911877	0.829032	540 tags=31%	list=3%	signal=30%
REACTOME_GOLGI_CISTERNAE_PERICENTRIOLAR_STACK_REORGANIZATION	10	0.360605	0.790618	0.726064	0.911877	0.829032	3034 tags=40%	list=19%	signal=33%
REACTOME_POLO_LIKE_KINASE_MEDIATED_EVENTS	5	-0.47833	-0.78942	0.729282	0.911877	0.829032	3152 tags=60%	list=20%	signal=48%
BIOCARTA_ASBCELL_PATHWAY	4	-0.48495	-0.78401	0.723164	0.911877	0.829032	5638 tags=75%	list=35%	signal=49%
REACTOME_HEME_SIGNALING	9	-0.42473	-0.78182	0.728013	0.911877	0.829032	3573 tags=33%	list=22%	signal=26%
REACTOME_TRIGLYCERIDE_BIOSYNTHESIS	8	-0.43062	-0.77409	0.725126	0.911877	0.829032	444 tags=25%	list=3%	signal=24%
REACTOME_INTERLEUKIN_21_SIGNALING	5	0.423419	0.773065	0.72549	0.911877	0.829032	2293 tags=40%	list=14%	signal=34%
BIOCARTA_SHH_PATHWAY	15	-0.40204	-0.80181	0.730486	0.912695	0.829775	2186 tags=20%	list=14%	signal=17%
REACTOME_CLATHRIN_MEDIATED_ENDOCYTOSIS	131	-0.33657	-0.86942	0.732409	0.91304	0.830089	941 tags=8%	list=6%	signal=7%
REACTOME_SYNTHESIS_OF_5_EICOSATETRAENOIC_ACIDS	5	-0.47372	-0.78181	0.732965	0.91304	0.830089	3226 tags=40%	list=20%	signal=32%
BIOCARTA_IFNG_PATHWAY	5	-0.47081	-0.77701	0.732965	0.91304	0.830089	2714 tags=60%	list=17%	signal=50%
REACTOME_FATTY_ACIDS	6	-0.44426	-0.75566	0.731532	0.91304	0.830089	1489 tags=50%	list=9%	signal=45%
WP_FATTY_ACID_BETAOXIDATION	31	0.288427	0.787124	0.733945	0.913574	0.830575	3436 tags=42%	list=21%	signal=33%
BIOCARTA_INTRINSIC_PATHWAY	13	0.336864	0.781469	0.734513	0.913596	0.830594	1669 tags=15%	list=10%	signal=14%
REACTOME_TRANSPORT_OF_THE_SLPB_DEPENDANT_MATURE_MRNA	34	0.286185	0.799571	0.736364	0.915119	0.831979	5309 tags=50%	list=33%	signal=34%
REACTOME_EFFECTS_OF_PIP2_HYDROLYSIS	25	-0.36533	-0.79236	0.736842	0.915119	0.831979	2196 tags=40%	list=14%	signal=35%
REACTOME_FREE_FATTY_ACIDS_REGULATE_INSULIN_SECRETION	9	-0.42132	-0.77555	0.737785	0.915604	0.832421	576 tags=33%	list=4%	signal=32%
REACTOME_CALNEXIN_CALRETICULIN_CYCLE	7	-0.45115	-0.78232	0.739362	0.916875	0.833576	3111 tags=57%	list=19%	signal=46%
REACTOME_ACTIVATION_OF_SMO	12	-0.40038	-0.77722	0.740964	0.917489	0.834134	2186 tags=25%	list=14%	signal=22%
REACTOME_DOWNREGULATION_OF_TGF_BETA_RECEPTOR_SIGNALING	16	-0.38587	-0.77725	0.740469	0.917489	0.834134	3078 tags=50%	list=19%	signal=41%
REACTOME_PREDNISONO_ADME	4	0.444548	0.769002	0.7431	0.919447	0.835914	8969 tags=100%	list=56%	signal=44%
REACTOME_HDR_THROUGH_SINGLE_STRAND_ANNEALING_SSA	34	0.284216	0.79407	0.745455	0.921119	0.837434	4710 tags=47%	list=29%	signal=33%
REACTOME_CHK1_CHK2_CDS1_MEDIATED_INACTIVATION_OF_CYCLIN_B_CDK1_CC	12	0.348004	0.784324	0.745562	0.921119	0.837434	4330 tags=25%	list=27%	signal=18%
REACTOME_THE_FATTY_ACID_CYCLING_MODEL	4	-0.47029	-0.7603	0.749529	0.925331	0.841263	994 tags=50%	list=6%	signal=47%
REACTOME_TGF_BETA_RECEPTOR_SIGNALING_ACTIVATES_SMADS	35	-0.35997	-0.80869	0.751592	0.926511	0.842336	5206 tags=51%	list=32%	signal=35%
REACTOME_CD28_DEPENDENT_VAV1_PATHWAY	11	0.355481	0.786992	0.752089	0.926511	0.842336	2852 tags=27%	list=18%	signal=22%
REACTOME_SHC_MEDIATED_CASCADE_FGFR2	17	-0.38296	-0.77294	0.752161	0.926511	0.842336	540 tags=53%	list=3%	signal=51%
REACTOME_NEGATIVE_REGULATION_OF_MAPK_PATHWAY	42	-0.36151	-0.83383	0.754902	0.92813	0.843808	961 tags=19%	list=6%	signal=18%
WP_NOTCH_SIGNALING_PATHWAY	44	-0.3555	-0.82436	0.758495	0.92813	0.843808	2625 tags=30%	list=16%	signal=25%
WP_ALPHA_6_BETA_4_INTEGRIN_SIGNALING_PATHWAY	63	-0.32972	-0.79945	0.758343	0.92813	0.843808	2929 tags=27%	list=18%	signal=22%
BIOCARTA_IL2RB_PATHWAY	33	-0.35413	-0.79141	0.755754	0.92813	0.843808	49 tags=9%	list=0%	signal=9%
REACTOME_PI_3K_CASCADE_FGFR2	18	0.318562	0.78752	0.756944	0.92813	0.843808	1087 tags=17%	list=7%	signal=16%
REACTOME_CRMP5_IN_SEMA3A_SIGNALING	5	0.321654	0.766385	0.758514	0.92813	0.843808	2144 tags=27%	list=13%	signal=23%
REACTOME_SEMA4A_INDUCED_CELL_MIGRATION_AND_GROWTH_CONE_COLLAPSE	11	-0.39913	-0.76305	0.754277	0.92813	0.843808	1495 tags=27%	list=9%	signal=25%
BIOCARTA_BARRESTIN_PATHWAY	11	-0.39585	-0.75677	0.755832	0.92813	0.843808	183 tags=18%	list=1%	signal=18%
REACTOME_INTERLEUKIN_9_SIGNALING	4	0.433167	0.749315	0.757962	0.92813	0.843808	2293 tags=50%	list=14%	signal=43%
WP_EICOSANOID_METABOLISM_VIA_CYCLOOXYGENASES_COX	23	0.301782	0.77985	0.760784	0.930222	0.84571	2174 tags=26%	list=13%	signal=23%
REACTOME_SIGNALING_BY_ERBB2	41	-0.35299	-0.8114	0.762963	0.930513	0.845975	2398 tags=17%	list=15%	signal=15%
REACTOME_G2_M_DNA_DAMAGE_CHECKPOINT	71	0.258978	0.78689	0.762295	0.930513	0.845975	4710 tags=35%	list=29%	signal=25%
REACTOME_METABOLISM_OF_STEROID_HORMONES	19	-0.37787	-0.77923	0.764951	0.930513	0.845975	3086 tags=26%	list=19%	signal=21%
REACTOME_CHEMOKINE_RECEPTORS_BIND_CHEMOKINES	21	-0.36835	-0.77269	0.764305	0.930513	0.845975	1390 tags=38%	list=9%	signal=35%
REACTOME_TRANSPORT_OF_CONNEXONS_TO_THE_PLASMA_MEMBRANE	13	-0.39297	-0.77171	0.764706	0.930513	0.845975	4216 tags=46%	list=26%	signal=34%
REACTOME_NOREPINEPHRINE_NEUROTRANSMITTER_RELEASE_CYCLE	18	-0.37004	-0.75895	0.764706	0.930513	0.845975	272 tags=17%	list=2%	signal=16%
BIOCARTA_TEL_PATHWAY	17	0.303153	0.755892	0.762987	0.930513	0.845975	2422 tags=29%	list=15%	signal=25%
REACTOME_SIGNALING_BY_THE_B_CELL_RECEPTOR_BCR	100	0.263354	0.825263	0.766667	0.931916	0.84725	2798 tags=20%	list=17%	signal=17%
WP_SIDS_SUSCEPTIBILITY_PATHWAYS	46	-0.34616	-0.80834	0.771463	0.93338	0.848581	1747 tags=17%	list=11%	signal=16%
WP_TRYPTOPHAN_METABOLISM	33	-0.34763	-0.77689	0.768542	0.93338	0.848581	1489 tags=15%	list=9%	signal=14%
REACTOME_TELOMERE_EXTENSION_BY_TELOMERASE	20	0.301883	0.774687	0.770318	0.93338	0.848581	2287 tags=25%	list=14%	signal=21%
REACTOME_FORMATION_OF_SENESCENCE_ASSOCIATED_HETEROCHROMATIN_FOC	11	0.346949	0.768102	0.771588	0.93338	0.848581	5918 tags=73%	list=37%	signal=46%
REACTOME_RHO_GTPASES_ACTIVATE_KTN1	11	0.346786	0.76774	0.771588	0.93338	0.848581	2963 tags=36%	list=18%	signal=30%



REACTOME_UREA_CYCLE	6	0.373235	0.730178	0.771812	0.93338	0.848581	3836 tags=33%	list=24%	signal=25%
BIOCARTA_P35ALZHEIMERS_PATHWAY	6	0.372953	0.729628	0.771812	0.93338	0.848581	5548 tags=67%	list=34%	signal=44%
REACTOME_G2_M_DNA_REPLICATION_CHECKPOINT	5	-0.43998	-0.72614	0.773481	0.934716	0.849796	5695 tags=80%	list=35%	signal=52%
REACTOME_PHOSPHOLIPASE_C_MEDIATED_CASCADE_FGFR1	12	-0.38349	-0.74634	0.774096	0.934779	0.849853	540 tags=17%	list=3%	signal=16%
BIOCARTA_AKAPCENTROSOME_PATHWAY	12	-0.38256	-0.74454	0.775602	0.935916	0.850887	1541 tags=17%	list=10%	signal=15%
REACTOME_APOPTOTIC_EXECUTION_PHASE	43	-0.34933	-0.80811	0.776829	0.936034	0.850994	1777 tags=14%	list=11%	signal=12%
REACTOME_BBSOME_MEDIATED_CARGO_TARGETING_TO_CILIUM	13	-0.38364	-0.7534	0.776772	0.936034	0.850994	517 tags=15%	list=3%	signal=15%
REACTOME_RHOC_GTPASE_CYCLE	71	-0.32523	-0.79515	0.782955	0.936113	0.851065	1242 tags=10%	list=8%	signal=9%
REACTOME_THROMBIN_SIGNALLING_THROUGH_PROTEINASE_ACTIVATED_RECEPT	27	-0.35487	-0.77233	0.78084	0.936113	0.851065	1542 tags=11%	list=10%	signal=10%
BIOCARTA_MET_PATHWAY	33	-0.34411	-0.76901	0.780051	0.936113	0.851065	49 tags=12%	list=0%	signal=12%
BIOCARTA_AGR_PATHWAY	31	-0.34173	-0.76278	0.781888	0.936113	0.851065	2903 tags=23%	list=18%	signal=19%
WP_ETHANOL_METABOLISM_RESULTING_IN_PRODUCTION_OF_ROS_BY_CYP2E1	9	0.354166	0.754204	0.778351	0.936113	0.851065	5179 tags=67%	list=32%	signal=45%
REACTOME_FRS_MEDIATED_FGFR1_SIGNALING	18	-0.35994	-0.73823	0.782913	0.936113	0.851065	540 tags=33%	list=3%	signal=32%
BIOCARTA_FIBRINOLYSIS_PATHWAY	5	-0.43706	-0.72131	0.780847	0.936113	0.851065	2970 tags=80%	list=18%	signal=65%
REACTOME_PHENYLALANINE_METABOLISM	5	-0.43582	-0.71928	0.782689	0.936113	0.851065	1396 tags=40%	list=9%	signal=37%
BIOCARTA_PKC_PATHWAY	7	0.347998	0.718035	0.783105	0.936113	0.851065	3358 tags=43%	list=21%	signal=34%
REACTOME_PTK6_REGULATES_CELL_CYCLE	5	-0.43437	-0.71687	0.782689	0.936113	0.851065	4688 tags=80%	list=29%	signal=57%
REACTOME_G2_PHASE	5	-0.4322	-0.7133	0.782689	0.936113	0.851065	4688 tags=80%	list=29%	signal=57%
BIOCARTA_MCALPAIN_PATHWAY	18	-0.35908	-0.73645	0.784314	0.936882	0.851765	2291 tags=39%	list=14%	signal=33%
REACTOME_MYOGENESIS	20	-0.36576	-0.75834	0.785814	0.937382	0.852219	586 tags=25%	list=4%	signal=24%
REACTOME_ESTROGEN_BIOSYNTHESIS	3	0.461432	0.7471	0.785863	0.937382	0.852219	1584 tags=33%	list=10%	signal=30%
REACTOME_MITOTIC_METAPHASE_AND_ANAPHASE	214	0.259379	0.873556	0.787234	0.938342	0.853093	5782 tags=43%	list=36%	signal=28%
REACTOME_DRUG_MEDIATED_INHIBITION_OF_CDK4_CDK6_ACTIVITY	5	-0.42923	-0.7084	0.788214	0.938835	0.85354	3394 tags=80%	list=21%	signal=63%
REACTOME_CELL_DEATH_SIGNALLING_VIA_NRAGE_NRIF_AND_NADE	69	-0.32118	-0.784	0.789534	0.939637	0.85427	2631 tags=19%	list=16%	signal=16%
REACTOME_DIGESTION_OF_DIETARY_CARBOHYDRATE	3	0.458541	0.74242	0.790021	0.939637	0.85427	4052 tags=67%	list=25%	signal=50%
REACTOME_TRANSLESION_SYNTHESIS_BY_POLK	16	0.30076	0.730153	0.790625	0.939682	0.854311	1784 tags=25%	list=11%	signal=22%
BIOCARTA_INTEGRIN_PATHWAY	33	-0.33973	-0.75923	0.795396	0.944676	0.858851	121 tags=6%	list=1%	signal=6%
BIOCARTA_CTCF_PATHWAY	23	0.288172	0.74468	0.796078	0.944809	0.858972	2330 tags=26%	list=14%	signal=22%
REACTOME_SIGNALING_BY_PDGF	51	-0.33205	-0.78502	0.797847	0.944879	0.859035	1193 tags=10%	list=7%	signal=9%
REACTOME_RHOBTB2_GTPASE_CYCLE	22	0.292683	0.750395	0.79771	0.944879	0.859035	4497 tags=55%	list=28%	signal=39%
REACTOME_MET_INTERACTS_WITH_TNS_PROTEINS	5	0.390021	0.712087	0.797386	0.944879	0.859035	560 tags=20%	list=3%	signal=19%
REACTOME_RAC2_GTPASE_CYCLE	85	-0.31918	-0.79602	0.798889	0.945437	0.859543	2468 tags=18%	list=15%	signal=15%
REACTOME_PROGRAMMED_CELL_DEATH	122	0.250149	0.81018	0.8	0.946077	0.860125	4398 tags=37%	list=27%	signal=27%
REACTOME_PHENYLALANINE_AND_TYROSINE_METABOLISM	7	0.373293	0.695947	0.80137	0.946347	0.86037	3777 tags=57%	list=23%	signal=44%
REACTOME_RELAXIN_RECEPTORS	5	-0.41627	-0.687	0.801105	0.946347	0.86037	4759 tags=80%	list=29%	signal=56%
WP_FOCAL_ADHESION	174	-0.3204	-0.83914	0.803778	0.946556	0.86056	2578 tags=17%	list=16%	signal=15%
REACTOME_FORMATION_OF_THE_CORNIFIED_ENVELOPE	27	0.283655	0.749308	0.804167	0.946556	0.86056	58 tags=4%	list=0%	signal=4%
REACTOME_KERATINIZATION	27	0.283655	0.749308	0.804167	0.946556	0.86056	58 tags=4%	list=0%	signal=4%
REACTOME_MET_ACTIVATES_RAS_SIGNALING	9	-0.39047	-0.71875	0.802932	0.946556	0.86056	5646 tags=56%	list=35%	signal=36%
REACTOME_INTERLEUKIN_27_SIGNALING	8	0.340777	0.713063	0.804401	0.946556	0.86056	2293 tags=38%	list=14%	signal=32%
REACTOME_INTRACELLULAR_SIGNALING_BY_SECOND_MESSENGERS	242	0.253341	0.861168	0.810811	0.946707	0.860698	2330 tags=22%	list=14%	signal=19%
REACTOME_G2_M_CHECKPOINTS	141	0.251887	0.797319	0.806452	0.946707	0.860698	4736 tags=31%	list=29%	signal=22%
REACTOME_SCF_SKP2_MEDIATED_DEGRADATION_OF_P27_P21	59	0.264623	0.789117	0.808511	0.946707	0.860698	2798 tags=19%	list=17%	signal=15%
WP_IL1_SIGNALING_PATHWAY	34	0.273736	0.764789	0.809091	0.946707	0.860698	3034 tags=32%	list=19%	signal=26%
WP_FIBRIN_COMPLEMENT_RECEPTOR_3_SIGNALING_PATHWAY	34	0.271138	0.757533	0.809091	0.946707	0.860698	2308 tags=26%	list=14%	signal=23%
REACTOME_NEGATIVE_REGULATION_OF_FGFR4_SIGNALING	24	0.290648	0.756049	0.808765	0.946707	0.860698	3034 tags=29%	list=19%	signal=24%
BIOCARTA_CASPASE_PATHWAY	20	0.289261	0.742297	0.809187	0.946707	0.860698	2649 tags=15%	list=16%	signal=13%
BIOCARTA_MAL_PATHWAY	17	-0.35913	-0.72485	0.808357	0.946707	0.860698	266 tags=12%	list=2%	signal=12%
BIOCARTA_RB_PATHWAY	12	-0.37169	-0.72339	0.810241	0.946707	0.860698	1703 tags=42%	list=11%	signal=37%
REACTOME_METHYLATION	12	-0.37167	-0.72334	0.810241	0.946707	0.860698	2099 tags=17%	list=13%	signal=15%
BIOCARTA_AKAP95_PATHWAY	10	-0.38218	-0.71425	0.809904	0.946707	0.860698	936 tags=40%	list=6%	signal=38%
BIOCARTA_SODD_PATHWAY	9	0.33533	0.714091	0.811856	0.94726	0.8612	1531 tags=22%	list=9%	signal=20%
REACTOME_APC_C_CDC20_MEDIATED_DEGRADATION_OF_CYCLIN_B	24	0.288384	0.750162	0.812749	0.947636	0.861542	5175 tags=33%	list=32%	signal=23%
REACTOME_CHAPERONIN_MEDIATED_PROTEIN_FOLDING	35	-0.33103	-0.74367	0.816561	0.951411	0.864974	594 tags=9%	list=4%	signal=8%
REACTOME_APC_C_MEDIATED_DEGRADATION_OF_CELL_CYCLE_PROTEINS	85	0.248196	0.763039	0.823529	0.953432	0.866811	5771 tags=39%	list=36%	signal=25%
REACTOME_DDX58IFIH1_MEDIATED_INDUCION_OF_INTERFERON_ALPHA_BETA	33	0.271223	0.752348	0.822727	0.953432	0.866811	2308 tags=24%	list=14%	signal=21%
REACTOME_NICOTINATE_METABOLISM	27	-0.33738	-0.73426	0.824147	0.953432	0.866811	2279 tags=30%	list=14%	signal=25%
REACTOME_PHOSPHOLIPASE_C_MEDIATED_CASCADE_FGFR2	13	-0.36709	-0.7209	0.820513	0.953432	0.866811	540 tags=15%	list=3%	signal=15%
REACTOME_INTERLEUKIN_12_FAMILY_SIGNALING	10	0.328607	0.720464	0.821809	0.953432	0.866811	2293 tags=31%	list=14%	signal=34%
REACTOME_HYALURONAN_METABOLISM	17	-0.35341	-0.7133	0.821326	0.953432	0.866811	3535 tags=29%	list=22%	signal=23%
REACTOME_HYPUSINE_SYNTHESIS_FROM_EIF5A_LYSINE	5	0.379268	0.692454	0.823529	0.953432	0.866811	10023 tags=100%	list=62%	signal=38%
REACTOME_REGULATION_OF_IFNG_SIGNALING	8	-0.38272	-0.68797	0.824621	0.953432	0.866811	2421 tags=50%	list=15%	signal=43%
REACTOME_ALPHA_OXIDATION_OF_PHTANATE	7	-0.39601	-0.6736	0.823423	0.953432	0.866811	3316 tags=50%	list=21%	signal=40%
REACTOME_PHOSPHATE_BOND_HYDROLYSIS_BY_NUDT_PROTEINS	6	0.324653	0.669868	0.821918	0.953432	0.866811	5501 tags=57%	list=34%	signal=38%
REACTOME_ATORVASTATIN_ADME	4	-0.40284	-0.65126	0.819209	0.953432	0.866811	5405 tags=75%	list=33%	signal=50%
REACTOME_SIGNALING_BY_NOTCH	38	-0.32821	-0.7452	0.825596	0.953894	0.867232	2625 tags=34%	list=16%	signal=29%
REACTOME_ABC_FAMILY_PROTEINS_MEDIATED_TRANSPORT	93	-0.31118	-0.78263	0.829295	0.957268	0.870298	3588 tags=31%	list=22%	signal=24%
REACTOME_NUCLEOTIDE_BINDING_DOMAIN_LEUCINE_RICH_REPEAT_CONTAINING	43	0.262391	0.761719	0.82967	0.957268	0.870298	2422 tags=26%	list=15%	signal=22%
BIOCARTA_PLATELETAPP_PATHWAY	10	-0.37357	-0.69817	0.830671	0.957755	0.870742	2970 tags=30%	list=18%	signal=24%
WP_FACTORS_AND_PATHWAYS_AFFECTING_INSULINLIKE_GROWTH_FACTOR_IGF1	27	-0.3311	-0.7206	0.835958	0.960512	0.873248	1931 tags=22%	list=12%	signal=20%
BIOCARTA_BAD_PATHWAY	23	-0.33765	-0.71701	0.835341	0.960512	0.873248	1376 tags=13%	list=9%	signal=12%
REACTOME_FRS_MEDIATED_FGFR2_SIGNALING	19	-0.34532	-0.7121	0.835883	0.960512	0.873248	540 tags=47%	list=3%	signal=46%
REACTOME_BASE_EXCISION_REPAIR_AP_SITE_FORMATION	11	0.319738	0.707861	0.835655	0.960512	0.873248	4891 tags=45%	list=30%	signal=32%
REACTOME_CDC6_ASSOCIATION_WITH_THE_ORC_ORIGIN_COMPLEX	7	-0.4029	-0.69866	0.835106	0.960512	0.873248	944 tags=43%	list=6%	signal=40%
REACTOME_GOLGI_TO_ER_RETROGRADE_TRANSPORT	122	-0.31259	-0.80229	0.838188	0.961727	0.874352	1360 tags=9%	list=8%	signal=8%
REACTOME_APC_CDC20_MEDIATED_DEGRADATION_OF_NEK2A	26	0.277039	0.723061	0.841004	0.961727	0.874352	5175 tags=35%	list=32%	signal=24%
REACTOME_COBALAMIN_CBL_VITAMIN_B12_TRANSPORT_AND_METABOLISM	13	-0.36129	-0.7095	0.840121	0.961727	0.874352	975 tags=23%	list=6%	signal=22%
WP_FOLIC_ACID_NETWORK	20	0.275835	0.707845	0.840989	0.961727	0.874352	3910 tags=40%	list=24%	signal=30%
REACTOME_INTERLEUKIN_2_SIGNALING	8	0.32522	0.68051	0.838631	0.961727	0.874352	2084 tags=25%	list=13%	signal=22%
REACTOME_SMALL_INTERFERING_RNA_SIRNA_BIOGENESIS	8	0.321038	0.671759	0.841076	0.961727	0.874352	2816 tags=50%	list=17%	signal=41%
REACTOME_VITAMIN_B1_THIAMIN_METABOLISM	5	-0.38708	-0.63883	0.839779	0.961727	0.874352	1197 tags=40%	list=7%	signal=37%
REACTOME_CYTOKINE_SIGNALING_IN_IMMUNE_SYSTEM	331	0.249631	0.889379	0.8457	0.963691	0.876138	2566 tags=21%	list=16%	signal=18%
REACTOME_MHC_CLASS_II_ANTIGEN_PRESENTATION	122	-0.31063	-0.79727	0.84466	0.963691	0.876138	1064 tags=20%	list=7%	signal=19%
REACTOME_PRC2_METHYLATES_HISTONES_AND_DNA	36	0.259944	0.733031	0.84507	0.963691	0.876138	1943 tags=11%	list=12%	signal=10%
WP_APOE_AND_MIR146_IN_INFLAMMATION_AND_ATHEROSCLEROSIS	8	0.314829	0.658767	0.843521	0.963691	0.876138	1788 tags=25%	list=11%	signal=22%
WP_HFE_EFFECT_ON_HEPCIDIN_PRODUCTION	5	-0.37941	-0.62618	0.845304	0.963691	0.876138	4696 tags=80%	list=29%	signal=57%
REACTOME_METABOLISM_OF_AMINO_ACIDS_AND_DERIVATIVES	214	0.254205	0.85613	0.851064	0.963694	0.876141	4140 tags=38%	list=26%	signal=29%
REACTOME_TOLL_LIKE_RECEPTOR_CASCADES	138	-0.3095	-0.80077	0.846318	0.963694	0.876141	961 tags=7%	list=6%	signal=7%
REACTOME_DEATH_RECEPTOR_SIGNALING	137	-0.309	-0.79999	0.847548	0.963694	0.876141	2631 tags=15%	list=16%	signal=13%
REACTOME_GLYCEROPHOSPHOLIPID_BIOSYNTHESIS	103	-0.30149	-0.76592	0.854486	0.963694	0.876141	2801 tags=25%	list=17%	signal=21%
REACTOME_GPVI_MEDIATED_ACTIVATION_CASCADE	31	0.269754	0.736163	0.848624	0.963694	0.876141	2781 tags=26%	list=17%	signal=21%
REACTOME_SWITCHING_OF_ORIGINS_TO_A_POST_REPLICATIVE_STATE	89	0.236147	0.733875	0.85567	0.963694	0.876141	5921 tags=43%	list=37%	signal=27%
WP_PARKINSONS_DISEASE	38	0.253171	0.724728	0.84878	0.963694	0.876141	1253 tags=13%	list=8%	signal=12%
REACTOME_COLLAGEN_BIOSYNTHESIS_AND_MODIFYING_ENZYMES	64	-0.29301	-0.71254	0.854358	0.963694	0.876141	2811 tags=25%	list=17%	signal=21%
REACTOME_ACTIVATION_OF_ATR_IN_RESPONSE_TO_REPLICATION_STRESS	34	0.25479	0.711857	0.854545	0.963694	0.876141	1830 tags=21%	list=11%	signal=18%
REACTOME_SIGNALING_BY_RETINOIC_ACID	31	-0.31534	-0.70387	0.855867	0.963694	0.876141	753 tags=29%	list=5%	signal=28%
REACTOME_GAB1_SIGNALOSOME	13	-0.357	-0.70107	0.852187	0.963694	0.876141	2398 tags=31%	list=15%	signal=26%
REACTOME_IONOTROPIC_ACTIVITY_OF_KAINATE_RECEPTORS	12	0.305998	0.689653	0.85503	0.963694	0.876141	2179 tags=33%	list=13%	signal=29%



REACTOME_METABOLISM_OF_FOLATE_AND_PTERINES	16	-0.34227	-0.68943	0.85044	0.963694	0.876141	4527 tags=44%	list=28%	signal=32%
REACTOME_DOWNREGULATION_OF_SMAD2_3_SMAD4_TRANSCRIPTIONAL_ACTIVATION	22	-0.32422	-0.68481	0.854054	0.963694	0.876141	262 tags=32%	list=2%	signal=31%
REACTOME_ERK_MAPK_TARGETS	19	0.272965	0.682863	0.855124	0.963694	0.876141	3050 tags=32%	list=19%	signal=26%
BIOCARTA_CDC25_PATHWAY	8	-0.36499	-0.6561	0.853288	0.963694	0.876141	1183 tags=25%	list=7%	signal=23%
BIOCARTA_WNT_LRP6_PATHWAY	1	-0.42804	-0.65197	0.852207	0.963694	0.876141	9236 tags=100%	list=57%	signal=43%
REACTOME_HUR_ELVIL1_BINDS_AND_STABILIZES_MRNA	7	0.308489	0.636515	0.856164	0.963694	0.876141	5070 tags=71%	list=31%	signal=49%
REACTOME_RAC3_GTPASE_CYCLE	88	-0.30341	-0.76035	0.860619	0.964126	0.876534	1250 tags=15%	list=8%	signal=14%
REACTOME_GENE_SILENCING_BY_RNA	41	0.255666	0.739655	0.859375	0.964126	0.876534	2095 tags=24%	list=13%	signal=21%
REACTOME_NEGATIVE_REGULATION_OF_FGFR3_SIGNALING	26	0.273719	0.714397	0.857741	0.964126	0.876534	3034 tags=27%	list=19%	signal=22%
REACTOME_GLUTATHIONE_CONJUGATION	30	0.260867	0.706394	0.857143	0.964126	0.876534	2333 tags=20%	list=14%	signal=17%
REACTOME_GASTRIN_CREB_SIGNALING_PATHWAY_VIA_PKC_AND_MAPK	14	0.28732	0.672541	0.860182	0.964126	0.876534	3050 tags=36%	list=19%	signal=29%
REACTOME_TRIGLYCERIDE_METABOLISM	12	-0.34132	-0.66429	0.85994	0.964126	0.876534	444 tags=17%	list=3%	signal=16%
REACTOME_PASSIVE_TRANSPORT_BY_AQUAPORINS	6	-0.36993	-0.62924	0.859459	0.964126	0.876534	10175 tags=100%	list=63%	signal=37%
REACTOME_ER_TO_GOLGI_ANTEROGRADE_TRANSPORT	138	-0.30294	-0.7838	0.86873	0.964594	0.87696	1435 tags=12%	list=9%	signal=11%
REACTOME_TOLL_LIKE_RECEPTOR_4_TLR4_CASCADE	114	-0.29836	-0.76503	0.871245	0.964594	0.87696	961 tags=4%	list=6%	signal=4%
REACTOME_MYD88_INDEPENDENT_TLR4_CASCADE	99	0.238365	0.742937	0.866667	0.964594	0.87696	2308 tags=22%	list=14%	signal=19%
REACTOME_NUCLEAR_PORE_COMPLEX_NPC_DISASSEMBLY	31	0.260835	0.711823	0.866972	0.964594	0.87696	2035 tags=19%	list=13%	signal=17%
REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_C_REQUIRED_FOR_CADHERIN_CATABOLISM	21	0.277512	0.706498	0.873134	0.964594	0.87696	5175 tags=38%	list=32%	signal=26%
REACTOME_OXIDATIVE_STRESS_INDUCED_SENESCENCE	37	-0.30542	-0.69295	0.871698	0.964594	0.87696	49 tags=11%	list=0%	signal=11%
BIOCARTA_EFP_PATHWAY	13	-0.35225	-0.69174	0.865762	0.964594	0.87696	5695 tags=54%	list=35%	signal=35%
BIOCARTA_G1_PATHWAY	25	-0.31419	-0.68145	0.869737	0.964594	0.87696	5206 tags=52%	list=32%	signal=35%
REACTOME_PENTOSE_PHOSPHATE_PATHWAY	13	-0.34552	-0.67853	0.873303	0.964594	0.87696	5431 tags=54%	list=34%	signal=36%
WP_PROSTAGLANDIN_SYNTHESIS_AND_REGULATION	25	-0.31273	-0.67828	0.875	0.964594	0.87696	3814 tags=36%	list=24%	signal=28%
REACTOME_ERKS_ARE_INACTIVATED	13	-0.34484	-0.67719	0.874811	0.964594	0.87696	961 tags=15%	list=6%	signal=14%
REACTOME_ENDOGENOUS_STEROLS	20	-0.32462	-0.67304	0.867872	0.964594	0.87696	921 tags=20%	list=6%	signal=19%
REACTOME_SYNTHESIS_OF_BILE_ACIDS_AND_BILE_SALTS	24	-0.31144	-0.67138	0.868176	0.964594	0.87696	921 tags=21%	list=6%	signal=20%
REACTOME_INTERLEUKIN_6_FAMILY_SIGNALING	18	-0.32562	-0.66783	0.866947	0.964594	0.87696	1869 tags=17%	list=12%	signal=15%
REACTOME_PLATELET_SENSITIZATION_BY_LDL	16	0.27299	0.662737	0.871875	0.964594	0.87696	5548 tags=69%	list=34%	signal=45%
REACTOME_PURINE_CATABOLISM	17	-0.32622	-0.65842	0.871758	0.964594	0.87696	745 tags=12%	list=5%	signal=11%
REACTOME_TERMINATION_OF_O_GLYCAN_BIOSYNTHESIS	10	-0.35147	-0.65686	0.864217	0.964594	0.87696	3082 tags=40%	list=19%	signal=32%
REACTOME_BH3_ONLY_PROTEINS_ASSOCIATE_WITH_AND_INACTIVATE_ANTI_APC	7	-0.37614	-0.65226	0.874113	0.964594	0.87696	1057 tags=29%	list=7%	signal=27%
BIOCARTA_CHREBP_PATHWAY	9	-0.35247	-0.6488	0.874593	0.964594	0.87696	936 tags=100%	list=6%	signal=94%
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_GENES_INVOLVED_IN_G1_CELL_CYCLE	10	-0.3461	-0.64682	0.870607	0.964594	0.87696	5880 tags=80%	list=36%	signal=51%
REACTOME_HDR_THROUGH_MME1_ALT_NHEJ	12	-0.33105	-0.64429	0.870482	0.964594	0.87696	641 tags=25%	list=4%	signal=24%
BIOCARTA_SKP2E2F_PATHWAY	9	0.297319	0.633147	0.871134	0.964594	0.87696	2798 tags=33%	list=17%	signal=28%
BIOCARTA_BBCELL_PATHWAY	3	-0.41549	-0.63286	0.867562	0.964594	0.87696	5638 tags=67%	list=35%	signal=43%
BIOCARTA_TERT_PATHWAY	6	-0.35541	-0.60453	0.872072	0.964594	0.87696	1703 tags=83%	list=11%	signal=75%
REACTOME_TRANS_GOLGI_NETWORK_VESICLE_BUDDING	70	-0.29005	-0.70924	0.880682	0.967	0.879147	1435 tags=11%	list=9%	signal=10%
REACTOME_INTERCONVERSION_OF_NUCLEOTIDE_DI_AND_TRIPHOSPHATES	25	0.273329	0.707932	0.880165	0.967	0.879147	5396 tags=36%	list=33%	signal=24%
REACTOME_REGULATION_OF_APC_C_ACTIVATORS_BETWEEN_G1_S_AND_EARLY_M	35	0.244636	0.68596	0.880184	0.967	0.879147	5175 tags=34%	list=32%	signal=23%
REACTOME_HOMOLOGOUS_DNA_PAIRING_AND_STRAND_EXCHANGE	25	-0.31012	-0.67261	0.880263	0.967	0.879147	641 tags=20%	list=4%	signal=19%
REACTOME_SYNTHESIS_OF_BILE_ACIDS_AND_BILE_SALTS_VIA_7ALPHA_HYDROXYLASE	15	-0.33455	-0.66722	0.879234	0.967	0.879147	277 tags=33%	list=2%	signal=33%
REACTOME_GAMMA_CARBOXYLATION_OF_PROTEIN_PRECURSORS	3	-0.40047	-0.60998	0.879079	0.967	0.879147	9681 tags=67%	list=60%	signal=27%
BIOCARTA_NKCELLS_PATHWAY	15	-0.3315	-0.66113	0.883652	0.967624	0.879714	1001 tags=20%	list=6%	signal=19%
REACTOME_ONCOGENE_INDUCED_SENESCENCE	16	-0.3216	-0.6478	0.882698	0.967624	0.879714	3551 tags=31%	list=22%	signal=24%
REACTOME_HDL_ASSEMBLY	7	-0.36848	-0.63896	0.884752	0.967624	0.879714	2394 tags=25%	list=15%	signal=24%
REACTOME_ASSEMBLY_OF_THE_ORC_COMPLEX_AT_THE_ORIGIN_OF_REPLICATION	8	-0.35007	-0.62929	0.883642	0.967624	0.879714	944 tags=38%	list=6%	signal=35%
REACTOME_RHO_GTPASES_ACTIVATE_ROCKS	5	0.340352	0.621403	0.884532	0.967624	0.879714	4111 tags=40%	list=25%	signal=30%
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_GENES_INVOLVED_IN_CYTOSOLIC_PROTEIN_FOLDING	7	0.294984	0.60865	0.883562	0.967624	0.879714	5846 tags=71%	list=36%	signal=46%
WP_DOPAMINERGIC_NEUROGENESIS	21	-0.30919	-0.64858	0.886921	0.968719	0.880709	2922 tags=43%	list=18%	signal=35%
REACTOME_MICRORNA_MIRNA_BIOGENESIS	6	-0.34144	-0.58077	0.886486	0.968719	0.880709	3271 tags=50%	list=20%	signal=40%
BIOCARTA_RELA_PATHWAY	14	0.275535	0.644955	0.887538	0.968754	0.880742	2308 tags=29%	list=14%	signal=25%
WP_SELENIUM_MICRONUTRIENT_NETWORK	18	0.26225	0.648311	0.888889	0.968953	0.880922	2738 tags=28%	list=17%	signal=23%
REACTOME_SEMA4D_MEDIATED_INHIBITION_OF_CELL_ATTACHMENT_AND_MIGRATION	8	-0.34393	-0.61825	0.888702	0.968953	0.880922	2419 tags=25%	list=15%	signal=21%
REACTOME_CELL_CYCLE_CHECKPOINTS	260	0.247795	0.858538	0.894737	0.971983	0.883677	4737 tags=31%	list=29%	signal=22%
REACTOME_SIGNALING_BY_FGFR	67	-0.28562	-0.69595	0.892816	0.971983	0.883677	3036 tags=16%	list=19%	signal=13%
REACTOME_PHOSPHORYLATION_OF_THE_APC_C	20	0.253077	0.649442	0.893993	0.971983	0.883677	5175 tags=35%	list=32%	signal=24%
BIOCARTA_AGPCR_PATHWAY	10	-0.33693	-0.62969	0.896166	0.971983	0.883677	936 tags=10%	list=6%	signal=9%
BIOCARTA_MPR_PATHWAY	18	-0.30583	-0.62725	0.896359	0.971983	0.883677	1183 tags=11%	list=7%	signal=10%
REACTOME_PEXOPHAGY	10	0.282149	0.618605	0.896277	0.971983	0.883677	1831 tags=20%	list=11%	signal=18%
BIOCARTA_FREE_PATHWAY	7	-0.35522	-0.61597	0.89539	0.971983	0.883677	6353 tags=86%	list=39%	signal=52%
REACTOME_MRNA_EDITING	4	-0.35929	-0.58086	0.894539	0.971983	0.883677	3170 tags=50%	list=20%	signal=40%
REACTOME_REGULATION_OF_RUNX1_EXPRESSION_AND_ACTIVITY	7	0.288846	0.595985	0.89726	0.972325	0.883988	3752 tags=29%	list=23%	signal=22%
REACTOME_SIGNALING_BY_FGFR2	57	0.240624	0.716842	0.899329	0.972502	0.884149	3034 tags=25%	list=19%	signal=20%
BIOCARTA_HIVNEF_PATHWAY	52	-0.28994	-0.68707	0.898689	0.972502	0.884149	1777 tags=13%	list=11%	signal=12%
REACTOME_HEDGEHOG_LIGAND_BIOGENESIS	61	-0.28007	-0.67821	0.89977	0.972502	0.884149	2638 tags=15%	list=16%	signal=12%
WP_FATTY_ACID_BIOSYNTHESIS	22	-0.29693	-0.62718	0.898649	0.972502	0.884149	1233 tags=9%	list=8%	signal=8%
REACTOME_MAPK_FAMILY_SIGNALING_CASCADES	267	0.253017	0.882681	0.902439	0.972805	0.884424	1659 tags=18%	list=10%	signal=17%
WP_PURINE_METABOLISM	151	0.235579	0.747092	0.912281	0.972805	0.884424	3394 tags=27%	list=21%	signal=22%
REACTOME_ORC1_REMOVAL_FROM_CHROMATIN	68	0.239007	0.716918	0.912	0.972805	0.884424	2798 tags=18%	list=17%	signal=15%
REACTOME_METABOLISM_OF_NUCLEOTIDES	84	0.222467	0.686118	0.914286	0.972805	0.884424	3713 tags=32%	list=23%	signal=25%
REACTOME_SIGNALING_BY_FGFR1	44	-0.28853	-0.66905	0.90534	0.972805	0.884424	2851 tags=18%	list=18%	signal=15%
REACTOME_SIGNALING_BY_PTK6	44	-0.28656	-0.6645	0.908981	0.972805	0.884424	2241 tags=16%	list=14%	signal=14%
REACTOME_INTERLEUKIN_17_SIGNALING	58	-0.2768	-0.66398	0.909197	0.972805	0.884424	961 tags=5%	list=6%	signal=5%
REACTOME_REGULATION_OF_TP53_DEGRADATION	35	0.235306	0.659799	0.912442	0.972805	0.884424	2250 tags=20%	list=14%	signal=17%
REACTOME_NEGATIVE_REGULATION_OF_FGFR2_SIGNALING	29	0.239474	0.640447	0.913793	0.972805	0.884424	3034 tags=24%	list=19%	signal=20%
REACTOME_NICOTINAMIDE_SALVAGING	16	0.261582	0.635042	0.903125	0.972805	0.884424	902 tags=12%	list=6%	signal=12%
BIOCARTA_SPRY_PATHWAY	16	0.259154	0.629146	0.909375	0.972805	0.884424	3724 tags=31%	list=23%	signal=24%
BIOCARTA_ECM_PATHWAY	21	-0.29717	-0.62337	0.914169	0.972805	0.884424	445 tags=10%	list=3%	signal=9%
BIOCARTA_STATHMIN_PATHWAY	14	-0.31331	-0.62085	0.915305	0.972805	0.884424	936 tags=29%	list=6%	signal=27%
REACTOME_DEPOLYMERIZATION_OF_THE_NUCLEAR_LAMINA	12	0.274444	0.618537	0.914201	0.972805	0.884424	247 tags=8%	list=2%	signal=8%
REACTOME_ALPHA_PROTEIN_KINASE_1_SIGNALING_PATHWAY	11	0.278964	0.617592	0.913649	0.972805	0.884424	4744 tags=45%	list=29%	signal=32%
REACTOME_INTERLEUKIN_15_SIGNALING	11	0.278685	0.616973	0.913649	0.972805	0.884424	2293 tags=18%	list=14%	signal=16%
BIOCARTA_NP1_PATHWAY	9	-0.33269	-0.6124	0.902228	0.972805	0.884424	887 tags=22%	list=5%	signal=21%
BIOCARTA_GATA3_PATHWAY	10	-0.32555	-0.60842	0.907348	0.972805	0.884424	936 tags=30%	list=6%	signal=28%
BIOCARTA_MCM_PATHWAY	13	-0.30789	-0.60464	0.912519	0.972805	0.884424	3203 tags=38%	list=20%	signal=31%
REACTOME_CONDENSATION_OF_PROMETAPHASE_CHROMOSOMES	8	0.287753	0.602113	0.914425	0.972805	0.884424	1567 tags=12%	list=10%	signal=11%
WP_PTF1A_RELATED_REGULATORY_PATHWAY	8	0.287531	0.601648	0.914425	0.972805	0.884424	4723 tags=38%	list=29%	signal=27%
REACTOME_RHO_GTPASES_ACTIVATE_CIT	7	-0.34603	-0.60004	0.900709	0.972805	0.884424	3903 tags=43%	list=24%	signal=33%
WP_LEPTIN_AND_ADIPONECTIN	8	-0.33088	-0.59479	0.91231	0.972805	0.884424	3044 tags=38%	list=19%	signal=30%
REACTOME_APOPTOSIS_INDUCED_DNA_FRAGMENTATION	9	0.276043	0.58784	0.912371	0.972805	0.884424	3744 tags=22%	list=23%	signal=17%
REACTOME_PHOSPHORYLATION_OF_EMI1	6	0.284298	0.556187	0.914989	0.972805	0.884424	11556 tags=100%	list=72%	signal=28%
REACTOME_EICOSANOIDS	6	-0.32223	-0.54811	0.908108	0.972805	0.884424	3814 tags=50%	list=24%	signal=38%
REACTOME_G1_S_DNA_DAMAGE_CHECKPOINTS	65	0.235646	0.710709	0.916667	0.973493	0.88505	2552 tags=17%	list=16%	signal=14%
REACTOME_OREXIN_AND_NEUROPEPTIDES_FF_AND_QRFP_BIND_TO_THEIR_RESPECTIVE_RECEPTORS	5	-0.32839	-0.54197	0.917127	0.973493	0.88505	2505 tags=40%	list=16%	signal=34%
REACTOME_METABOLISM_OF_WATER_SOLUBLE_VITAMINS_AND_COFACTORS	104	-0.2807	-0.71304	0.918033	0.973831	0.885357	3812 tags=25%	list=24%	signal=19%
REACTOME_RHOA_GTPASE_CYCLE	138	-0.28322	-0.73278	0.919957	0.975249	0.886646	1277 tags=10%	list=8%	signal=9%
REACTOME_RHO_GTPASE_CYCLE	72	-0.2737	-0.66831	0.928082	0.976769	0.888028	1250 tags=31%	list=8%	signal=28%



REACTOME_ASYMMETRIC_LOCALIZATION_OF_PCP_PROTEINS	60	0.223879	0.660647	0.924812	0.976769	0.888028	2552 tags=15%	list=16%	signal=13%
REACTOME_TRANSCRIPTIONAL_ACTIVITY_OF_SMAD2_SMAD3_SMAD4_HETEROTRI	38	0.224814	0.643553	0.926829	0.976769	0.888028	3313 tags=37%	list=21%	signal=29%
REACTOME_SEALING_OF_THE_NUCLEAR_ENVELOPE_NE_BY_ESCRT_III	21	0.250136	0.636804	0.925373	0.976769	0.888028	4557 tags=38%	list=28%	signal=27%
REACTOME_BILE_ACID_AND_BILE_SALT_METABOLISM	28	-0.28675	-0.62721	0.924282	0.976769	0.888028	921 tags=21%	list=6%	signal=20%
BIOCARTA_IL1R_PATHWAY	25	-0.28191	-0.61143	0.922368	0.976769	0.888028	3202 tags=24%	list=20%	signal=19%
REACTOME_CASPASE_ACTIVATION_VIA_EXTRINSIC_APOPTOTIC_SIGNALLING_PATH	18	0.246295	0.608869	0.923611	0.976769	0.888028	1531 tags=11%	list=9%	signal=10%
REACTOME_BINDING_AND_UPTAKE_OF_LIGANDS_BY_SCAVENGER_RECEPTORS	23	-0.2818	-0.59841	0.92905	0.976769	0.888028	3913 tags=39%	list=24%	signal=30%
BIOCARTA_PTC1_PATHWAY	11	0.26244	0.58101	0.927577	0.976769	0.888028	4401 tags=36%	list=27%	signal=26%
BIOCARTA_P27_PATHWAY	11	0.262381	0.580879	0.927577	0.976769	0.888028	2798 tags=27%	list=17%	signal=23%
REACTOME ASPARTATE AND ASPARAGINE METABOLISM	11	-0.29676	-0.56733	0.926905	0.976769	0.888028	4007 tags=45%	list=25%	signal=34%
REACTOME_SEROTONIN_AND_MELATONIN_BIOSYNTHESIS	3	-0.35543	-0.54137	0.928983	0.976769	0.888028	4930 tags=67%	list=31%	signal=46%
BIOCARTA_PLCD_PATHWAY	5	-0.325	-0.53637	0.922652	0.976769	0.888028	1998 tags=40%	list=12%	signal=35%
WP_EICOSANOID_SYNTHESIS	15	-0.30104	-0.6004	0.930781	0.977968	0.889119	3814 tags=27%	list=24%	signal=20%
REACTOME_G_ALPHA_12_13_SIGNALLING_EVENTS	74	-0.27097	-0.66399	0.931896	0.97852	0.88962	594 tags=9%	list=4%	signal=9%
REACTOME_BETA_CATENIN_INDEPENDENT_WNT_SIGNALING	119	0.220953	0.716767	0.935897	0.979511	0.890521	2880 tags=21%	list=18%	signal=17%
WP_IL6_SIGNALING_PATHWAY	96	-0.26874	-0.67809	0.933848	0.979511	0.890521	638 tags=8%	list=4%	signal=8%
REACTOME_MYD88_MAL_TIRAP_CASCADE_INITIATED_ON_PLASMA_MEMBRANE	83	-0.26804	-0.66601	0.936384	0.979511	0.890521	961 tags=6%	list=6%	signal=6%
REACTOME_RHOH_GTPASE_CYCLE	35	-0.27619	-0.62047	0.935032	0.979511	0.890521	3075 tags=23%	list=19%	signal=19%
REACTOME_INTERFERON_GAMMA_SIGNALING	14	-0.29191	-0.57842	0.934621	0.979511	0.890521	2421 tags=29%	list=15%	signal=24%
WP_PENTOSE_PHOSPHATE_PATHWAY	7	-0.31306	-0.54287	0.93617	0.979511	0.890521	3755 tags=57%	list=23%	signal=44%
BIOCARTA_PS1_PATHWAY	12	-0.29644	-0.57694	0.938253	0.980847	0.891736	1769 tags=25%	list=11%	signal=22%
REACTOME_UB_SPECIFIC_PROCESSING_PROTEASES	159	0.235331	0.743022	0.94	0.981289	0.892138	3371 tags=28%	list=21%	signal=22%
REACTOME_SIGNALING_BY_TGF_BETA_RECEPTOR_COMPLEX	71	-0.26518	-0.64833	0.944318	0.981289	0.892138	4696 tags=38%	list=29%	signal=27%
REACTOME_RAS_PROCESSING	22	-0.27605	-0.5862	0.941098	0.981289	0.892138	432 tags=13%	list=3%	signal=13%
REACTOME_RHO_GTPASES_ACTIVATE_PKNS	23	-0.27105	-0.5725	0.944595	0.981289	0.892138	764 tags=9%	list=5%	signal=9%
WP_KENNEDY_PATHWAY	14	-0.28302	-0.56082	0.943536	0.981289	0.892138	3136 tags=29%	list=19%	signal=23%
REACTOME_MITOCHONDRIAL_IRON_SULFUR_CLUSTER_BIOGENESIS	12	-0.28657	-0.55773	0.942771	0.981289	0.892138	11522 tags=100%	list=71%	signal=29%
BIOCARTA_MELANOCYTE_PATHWAY	7	-0.30583	-0.53032	0.939716	0.981289	0.892138	2933 tags=29%	list=18%	signal=23%
WP_NONHOMOLOGOUS_END_JOINING	7	0.254381	0.524872	0.940639	0.981289	0.892138	2864 tags=29%	list=18%	signal=24%
REACTOME_PROSTANOID_LIGAND_RECEPTORS	6	0.267025	0.522395	0.944072	0.981289	0.892138	1675 tags=17%	list=10%	signal=15%
REACTOME_ACTIVATION_OF_NIMA_KINASES_NEK9_NEK6_NEK7	5	0.28428	0.519029	0.943355	0.981289	0.892138	11556 tags=100%	list=72%	signal=28%
REACTOME_APOPTOSIS	94	0.221239	0.683814	0.945652	0.981773	0.892577	4111 tags=33%	list=25%	signal=25%
WP_MECHANISMS_ASSOCIATED_WITH_PLURIPOTENCY	257	0.224608	0.776988	0.948718	0.982451	0.893194	2507 tags=24%	list=16%	signal=20%
REACTOME_FATTY_ACID_METABOLISM	136	-0.26436	-0.68389	0.948773	0.982451	0.893194	1720 tags=11%	list=11%	signal=10%
REACTOME_SEMAAD_IN_SEMAPHORIN_SIGNALING	15	-0.2845	-0.56739	0.946981	0.982451	0.893194	2419 tags=20%	list=15%	signal=17%
REACTOME_PREGNENOLONE_BIOSYNTHESIS	11	0.246449	0.545606	0.949861	0.982451	0.893194	3651 tags=36%	list=23%	signal=28%
REACTOME_INTERACTION_WITH_CUMULUS_CELLS_AND_THE_ZONA_PELLUCIDA	3	-0.34142	-0.52004	0.948177	0.982451	0.893194	2826 tags=67%	list=18%	signal=55%
REACTOME_GLUTATHIONE_SYNTHESIS_AND_RECYCLING	11	0.234274	0.518654	0.949861	0.982451	0.893194	3734 tags=27%	list=23%	signal=21%
REACTOME_GLUCCOSE_METABOLISM	72	-0.25755	-0.62887	0.955479	0.987646	0.897917	1762 tags=10%	list=11%	signal=9%
WP_HYPOXIADEPENDENT_SELFRENEWAL_OF_MYOBlasts	9	0.248714	0.529641	0.956186	0.987761	0.898021	12131 tags=100%	list=75%	signal=25%
REACTOME_KINESINS	51	0.21447	0.649178	0.957831	0.9879	0.898148	2963 tags=22%	list=18%	signal=18%
WP_OVARIAN_INFERTILITY	22	-0.26183	-0.55305	0.958108	0.9879	0.898148	4917 tags=36%	list=30%	signal=25%
REACTOME_RELEASE_OF_APOPTOTIC_FACTORS_FROM_THE_MITOCHONDRIA	7	-0.2823	-0.48953	0.957447	0.9879	0.898148	2374 tags=15%	list=15%	signal=49%
REACTOME_ANTIGEN_ACTIVATES_B_CELL_RECEPTOR_BCR_LEADING_TO_GENERAT	22	-0.25591	-0.54053	0.959459	0.988679	0.898856	3190 tags=27%	list=20%	signal=22%
REACTOME_AMINO_ACIDS_REGULATE_MTORC1	51	-0.25339	-0.59906	0.960526	0.988908	0.899064	1339 tags=18%	list=8%	signal=16%
REACTOME_RUNX1_REGULATES_TRANSCRIPTION_OF_GENES_INVOLVED_IN_DIFFE	63	-0.2427	-0.58846	0.960875	0.988908	0.899064	748 tags=8%	list=5%	signal=8%
WP_WNT_SIGNALING_PATHWAY_WP539	101	-0.25306	-0.64177	0.963816	0.991319	0.901257	1571 tags=7%	list=10%	signal=6%
REACTOME_SIGNALING_BY_HEDGEHOG	133	-0.25945	-0.67036	0.964744	0.991658	0.901565	1282 tags=11%	list=8%	signal=10%
REACTOME_CROSS_PRESENTATION_OF_SOLUBLE_EXOGENOUS_ANTIGENS_ENDOS	46	0.215457	0.635578	0.965714	0.992041	0.901913	2552 tags=17%	list=16%	signal=15%
REACTOME_DECTIN_2_FAMILY	6	-0.27958	-0.47556	0.967568	0.993329	0.903084	2624 tags=50%	list=16%	signal=42%
BIOCARTA_PML_PATHWAY	15	-0.26426	-0.52703	0.969072	0.993644	0.90337	4053 tags=40%	list=25%	signal=30%
REACTOME_GAP_JUNCTION_DEGRADATION	11	-0.25194	-0.48164	0.968896	0.993644	0.90337	3667 tags=27%	list=23%	signal=21%
REACTOME_SYNTHESIS_OF_PPC	25	-0.23404	-0.5076	0.969737	0.993711	0.903431	1692 tags=16%	list=10%	signal=14%
REACTOME_NUCLEAR_ENVELOPE_BREAKDOWN	46	0.210451	0.620812	0.971429	0.994829	0.904448	2035 tags=15%	list=13%	signal=13%
REACTOME_TAK1_DEPENDENT_IKK_AND_NF_KAPPA_B_ACTIVATION	37	-0.23249	-0.52749	0.973585	0.996422	0.905896	2598 tags=14%	list=16%	signal=11%
REACTOME_CD209_DC_SIGN_SIGNALING	16	0.225057	0.546369	0.975	0.997255	0.906653	3508 tags=25%	list=22%	signal=20%
REACTOME_TOLL LIKE RECEPTOR_9_TLR9_CASCADE	93	-0.23204	-0.5836	0.977974	0.999064	0.908297	961 tags=4%	list=6%	signal=4%
REACTOME_EICOSANOID_LIGAND_BINDING_RECEPTORS	10	-0.25964	-0.48525	0.977636	0.999064	0.908297	6251 tags=70%	list=39%	signal=43%
REACTOME_M_PHASE	343	0.263746	0.950991	0.984771	1	0.909149	4965 tags=35%	list=31%	signal=25%
REACTOME_MEMBRANE_TRAFFICKING	525	-0.27249	-0.74531	0.981982	1	0.909149	1471 tags=8%	list=9%	signal=8%
REACTOME_ADAPTIVE_IMMUNE_SYSTEM	623	-0.26502	-0.72715	0.99	1	0.909149	2899 tags=16%	list=18%	signal=13%
REACTOME_VESICLE_MEDIATED_TRANSPORT	548	-0.26367	-0.72228	0.987	1	0.909149	1471 tags=8%	list=9%	signal=8%
REACTOME_CELLULAR_RESPONSE_TO_CHEMICAL_STRESS	148	0.22097	0.68828	0.981481	1	0.909149	2798 tags=20%	list=17%	signal=16%
REACTOME_SIGNALING_BY_WNT	219	-0.24687	-0.65284	0.988482	1	0.909149	1593 tags=11%	list=10%	signal=10%
REACTOME_SIGNALING_BY_INTERLEUKINS	230	-0.23967	-0.63532	0.991658	1	0.909149	1500 tags=5%	list=9%	signal=5%
REACTOME_INTRA_GOLGI_AND_RETROGRADE_GOLGI_TO_ER_TRAFFIC	177	-0.24137	-0.6311	0.982086	1	0.909149	1360 tags=7%	list=8%	signal=6%
REACTOME_MITOTIC_PROPHASE	85	0.186013	0.571866	1	1	0.909149	3546 tags=21%	list=22%	signal=17%
REACTOME_INTERLEUKIN_1_FAMILY_SIGNALING	108	-0.21747	-0.55396	0.991295	1	0.909149	719 tags=4%	list=4%	signal=4%
REACTOME_THE_CITRIC_ACID_TCA_CYCLE_AND_RESPIRATORY_ELECTRON_TRANSF	138	-0.21391	-0.55345	0.998933	1	0.909149	12 tags=4%	list=0%	signal=4%
REACTOME_CLASS_I_MHC_MEDIATED_ANTIGEN_PROCESSING_PRESENTATION	325	-0.20311	-0.54718	1	1	0.909149	2728 tags=13%	list=17%	signal=11%
REACTOME_TCF_DEPENDENT_SIGNALING_IN_RESPONSE_TO_WNT	144	-0.21059	-0.54665	0.996819	1	0.909149	2658 tags=10%	list=16%	signal=9%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_RUNX1	147	-0.20892	-0.54518	0.998946	1	0.909149	748 tags=3%	list=5%	signal=3%
REACTOME_CYCLIN_D_ASSOCIATED_EVENTS_IN_G1	42	0.184734	0.532538	0.989247	1	0.909149	3752 tags=24%	list=23%	signal=18%
WP_G1_TO_S_CELL_CYCLE_CONTROL	58	0.17729	0.52882	1	1	0.909149	2435 tags=16%	list=15%	signal=13%
REACTOME_DEPOSITION_OF_NEW_CENPA_CONTAINING_NUCLEOSOMES_AT_THE	46	0.178469	0.526468	0.988571	1	0.909149	13271 tags=100%	list=82%	signal=18%
REACTOME_E3_UBIQUITIN_LIGASES_UBIQUITINATE_TARGET_PROTEINS	42	0.170382	0.491164	0.994624	1	0.909149	6163 tags=48%	list=38%	signal=30%
REACTOME_RESOLUTION_OF_D_LOOP_STRUCTURES	31	-0.21901	-0.48885	0.983418	1	0.909149	641 tags=19%	list=4%	signal=19%
WP_PROTEASOME_DEGRADATION	47	0.162752	0.485829	1	1	0.909149	2552 tags=15%	list=16%	signal=13%
REACTOME_CONDENSATION_OF_PROPHASE_CHROMOSOMES	30	0.178292	0.482792	0.991071	1	0.909149	13271 tags=100%	list=82%	signal=18%
BIOCARTA_TGFB_PATHWAY	17	-0.23463	-0.47356	0.991354	1	0.909149	5570 tags=53%	list=35%	signal=35%
WP_GLUTATHIONE_METABOLISM	17	-0.22817	-0.46052	0.995677	1	0.909149	3389 tags=24%	list=21%	signal=19%
REACTOME_CYCLIN_A_B1_B2_ASSOCIATED_EVENTS_DURING_G2_M_TRANSITION	25	0.176748	0.457783	1	1	0.909149	13295 tags=100%	list=82%	signal=18%
REACTOME_SYNTHESIS_OF_LIPOXINS_LX	5	-0.273	-0.45055	0.981584	1	0.909149	2359 tags=40%	list=15%	signal=34%
REACTOME_ACTIVATION_OF_THE_TFAP2_AP_2_FAMILY_OF_TRANSCRIPTION_FACT	9	0.210784	0.448869	0.981959	1	0.909149	12743 tags=100%	list=79%	signal=21%
REACTOME_TRISTETRAPROLIN_TTP_ZFP36_BINDS_AND_DESTABILIZES_MRNA	16	0.183475	0.445422	0.99375	1	0.909149	4959 tags=38%	list=31%	signal=26%
REACTOME_EUKARYOTIC_TRANSLATION_TERMINATION	6	0.226273	0.442669	0.986577	1	0.909149	5352 tags=67%	list=33%	signal=45%
BIOCARTA_CELLCYCLE_PATHWAY	22	-0.20816	-0.43968	0.993243	1	0.909149	5880 tags=59%	list=36%	signal=38%
REACTOME_SYNTHESIS_OF_12_EICOSATETRAENOIC_ACID_DERIVATIVES	5	0.227062	0.414561	0.986928	1	0.909149	5489 tags=60%	list=34%	signal=40%
REACTOME_DIGESTION_AND_ABSORPTION	7	-0.23871	-0.41394	0.987589	1	0.909149	4365 tags=43%	list=27%	signal=31%
REACTOME_DISPLACEMENT_OF_DNA_GLYCOSYLASE_BY_APEX1	9	-0.21779	-0.40089	0.993485	1	0.909149	12631 tags=100%	list=78%	signal=22%
REACTOME_DIGESTION	5	-0.24271	-0.40056	0.990792	1	0.909149	4292 tags=40%	list=27%	signal=29%
REACTOME_NUCLEAR_ENVELOPE_NE_REASSEMBLY	60	-0.14692	-0.35554	1	1	0.909149	5103 tags=32%	list=32%	signal=22%
WP_MIRNAS_AND_TFS_IN_IPS_CELL_GENERATION	6	-0.20258	-0.34459	0.998198	1	0.909149	2922 tags=33%	list=18%	signal=27%



## GSEA MNK2KO

\* GSEA mouse MSigDB canonical pathways: m2.cp.v2023.1.Mm.symbols

Description	setSize	enrichment NES	pvalue	p.adjust	qvalue	rank	leading	ed	core	enrichment
BIOCARTA_COMP_PATHWAY	12	0.957093	1.928782	0.000128	0.106115	0.104235	2	tags=8%	list=0%	signal=8%
BIOCARTA_CLASSIC_PATHWAY	9	0.97169	1.892386	0.000105	0.106115	0.104235	2	tags=11%	list=0%	signal=11%
REACTOME_INTEGRIN_CELL_SURFACE_INTERACTIONS	66	0.812892	1.898586	0.000266	0.117568	0.115486	385	tags=12%	list=2%	signal=12%
BIOCARTA_LECTIN_PATHWAY	7	0.977095	1.852214	0.000283	0.117568	0.115486	2	tags=14%	list=0%	signal=14%
REACTOME_COMPLEMENT_CASCADE	28	0.877839	1.90018	0.000393	0.130464	0.128153	2	tags=4%	list=0%	signal=4%
WP_ELECTRON_TRANSPORT_CHAIN	65	-0.80998	-2.12544	0.001237	0.186755	0.183447	1024	tags=72%	list=7%	signal=68%
REACTOME_BINDING_AND_UPTAKE_OF_LIGANDS_BY_SCAVENGER	22	0.900864	1.912186	0.000742	0.186755	0.183447	57	tags=9%	list=0%	signal=9%
WP_COMPLEMENT_ACTIVATION_CLASSICAL_PATHWAY	13	0.943318	1.908718	0.000791	0.186755	0.183447	2	tags=8%	list=0%	signal=8%
REACTOME_INITIAL_TRIGGERING_OF_COMPLEMENT	14	0.92181	1.877779	0.001193	0.186755	0.183447	2	tags=7%	list=0%	signal=7%
WP_GPCRS_NONODORANT	169	0.678417	1.799947	0.000991	0.186755	0.183447	1219	tags=17%	list=8%	signal=16%
WP_FOCAL_ADHESION_PI3KAKTMTOR_SIGNALING_PATHWAY	274	0.615001	1.70623	0.001019	0.186755	0.183447	523	tags=7%	list=3%	signal=7%
REACTOME_RESPIRATORY_ELECTRON_TRANSPORT	86	-0.8302	-2.22419	0.001435	0.198613	0.195095	1630	tags=73%	list=10%	signal=66%
REACTOME_RESPIRATORY_ELECTRON_TRANSPORT_ATP_SYNTHESIS	93	-0.7881	-2.10852	0.001724	0.220248	0.216347	1630	tags=70%	list=10%	signal=63%
WP_OXIDATIVE_PHOSPHORYLATION	32	-0.87831	-2.20414	0.002266	0.250876	0.246432	999	tags=81%	list=6%	signal=76%
REACTOME_ACTIVATION_OF_C3_AND_C5	5	0.976286	1.749213	0.002208	0.250876	0.246432	2	tags=20%	list=0%	signal=20%
REACTOME_COMPLEX_I_BIOGENESIS	50	-0.85187	-2.19495	0.003182	0.290983	0.285828	1630	tags=78%	list=10%	signal=70%
REACTOME_THE_CITRIC_ACID_TCA_CYCLE_AND_RESPIRATORY_ELE	137	-0.76191	-2.05354	0.003329	0.290983	0.285828	1656	tags=66%	list=11%	signal=60%
REACTOME_REGULATION_OF_INSULIN LIKE_GROWTH_FACTOR_IGF	87	0.724697	1.767174	0.003144	0.290983	0.285828	1499	tags=24%	list=10%	signal=22%
REACTOME_BUTYROPHILIN_BTN_FAMILY_INTERACTIONS	3	0.98702	1.591995	0.003023	0.290983	0.285828	62	tags=33%	list=0%	signal=33%
WP_CHOLESTEROL_BIOSYNTHESIS	15	-0.92548	-2.1251	0.004094	0.304912	0.299512	353	tags=53%	list=2%	signal=52%
REACTOME_CLEAVAGE_OF_THE_DAMAGED_PYRIMIDINE	8	-0.9583	-1.92845	0.003733	0.304912	0.299512	11	tags=25%	list=0%	signal=25%
REACTOME_TRANSLATION	216	-0.69354	-1.91363	0.004435	0.304912	0.299512	3298	tags=69%	list=21%	signal=55%
WP_WNT_SIGNALING_IN_KIDNEY_DISEASE	41	0.811981	1.812807	0.004589	0.304912	0.299512	275	tags=15%	list=2%	signal=14%
WP_MECHANISMS_ASSOCIATED_WITH_PLURIPOTENCY	256	0.593244	1.638278	0.00446	0.304912	0.299512	891	tags=12%	list=6%	signal=12%
REACTOME_NEURONAL_SYSTEM	306	0.574214	1.617885	0.004088	0.304912	0.299512	2248	tags=28%	list=14%	signal=25%
REACTOME_NONSENSE_MEDIATED_DECAY_NMD_INDEPENDENT_O	84	-0.74437	-1.9764	0.005796	0.331994	0.326113	3443	tags=83%	list=22%	signal=65%
WP_SIDS_SUSCEPTIBILITY_PATHWAYS	44	0.784697	1.764039	0.005628	0.331994	0.326113	500	tags=9%	list=3%	signal=9%
REACTOME_RELEASE_OF_HH_NP_FROM_THE_SECRETING_CELL	5	0.968308	1.734919	0.00539	0.331994	0.326113	40	tags=40%	list=0%	signal=40%
BIOCARTA_SLRP_PATHWAY	4	0.961502	1.649234	0.005718	0.331994	0.326113	274	tags=50%	list=2%	signal=49%
REACTOME_AMINO_ACID_TRANSPORT_ACROSS_THE_PLASMA_MEM	28	0.824371	1.784441	0.006409	0.346671	0.340531	1588	tags=46%	list=10%	signal=42%
WP_GPCRS_ODORANT	67	0.723903	1.701834	0.00647	0.346671	0.340531	631	tags=13%	list=4%	signal=13%
REACTOME_BASE_EXCISION_REPAIR_AP_SITE_FORMATION	10	-0.93566	-1.95219	0.007881	0.409054	0.401809	11	tags=20%	list=0%	signal=20%
REACTOME_DISPLACEMENT_OF_DNA_GLYCOSYLASE_BY_APEX1	9	-0.93985	-1.93279	0.009191	0.462595	0.454401	11	tags=22%	list=0%	signal=22%
REACTOME_APOPTOSIS_INDUCED_DNA_FRAGMENTATION	9	-0.93357	-1.91989	0.010862	0.474767	0.466358	63	tags=22%	list=0%	signal=22%
REACTOME_GRB2_SOS_PROVIDES_LINKAGE_TO_MAPK_SIGNALING	12	0.904026	1.821839	0.010438	0.474767	0.466358	101	tags=17%	list=1%	signal=17%
REACTOME_PLATELET_AGGREGATION_PLUG_FORMATION	32	0.811356	1.788314	0.010421	0.474767	0.466358	542	tags=16%	list=3%	signal=15%
REACTOME_GABA_RECEPTOR_ACTIVATION	52	0.574712	1.742396	0.01084	0.474767	0.466358	685	tags=13%	list=4%	signal=13%
REACTOME_SLC_MEDIATED_TRANSMEMBRANE_TRANSPORT	186	0.680101	1.621763	0.010388	0.474767	0.466358	1997	tags=27%	list=13%	signal=24%
REACTOME_BASE_EXCISION_REPAIR	37	-0.81875	-2.0775	0.012031	0.50512	0.496172	11	tags=8%	list=0%	signal=8%
REACTOME_GLYCOSAMINOGLYCAN_METABOLISM	116	0.637568	1.623063	0.012164	0.50512	0.496172	3973	tags=54%	list=25%	signal=41%
REACTOME_P130CAS_LINKAGE_TO_MAPK_SIGNALING_FOR_INTEG	12	0.89986	1.813442	0.012742	0.516205	0.507061	101	tags=17%	list=1%	signal=17%
REACTOME_FORMATION_OF_A_POOL_OF_FREE_40S_SUBUNITS	91	-0.75485	-2.02933	0.015113	0.528176	0.518821	3471	tags=86%	list=22%	signal=67%
REACTOME_EUKARYOTIC_TRANSLATION_INITIATION	109	-0.70884	-1.88595	0.014568	0.528176	0.518821	3734	tags=79%	list=24%	signal=61%
REACTOME_NOTCH_HLH_TRANSCRIPTION_PATHWAY	22	0.846147	1.796042	0.015263	0.528176	0.518821	489	tags=27%	list=3%	signal=26%
REACTOME_EICOSANOID_LIGAND_BINDING_RECEPTORS	10	0.915046	1.794109	0.014391	0.528176	0.518821	20	tags=10%	list=0%	signal=10%
REACTOME_PROSTANOID_LIGAND_RECEPTORS	6	0.951432	1.756421	0.014147	0.528176	0.518821	20	tags=17%	list=0%	signal=17%
WP_NEURAL_CRESCENT_DIFFERENTIATION	76	0.700408	1.668062	0.014912	0.528176	0.518821	624	tags=20%	list=4%	signal=19%
REACTOME_CELL_SURFACE_INTERACTIONS_AT_THE_VASCULAR_WA	73	0.686876	1.632208	0.01479	0.528176	0.518821	391	tags=10%	list=2%	signal=9%
REACTOME_MITOCHONDRIAL_TRANSLATION	88	-0.69185	-1.8589	0.017029	0.533668	0.524215	3229	tags=69%	list=21%	signal=55%
BIOCARTA_GABA_PATHWAY	10	0.911082	1.786338	0.016956	0.533668	0.524215	4	tags=10%	list=0%	signal=10%
BIOCARTA_NPP1_PATHWAY	10	0.910822	1.785828	0.016956	0.533668	0.524215	194	tags=20%	list=1%	signal=20%
REACTOME_RUNX3_REGULATES_NOTCH_SIGNALING	9	0.913256	1.778586	0.016802	0.533668	0.524215	392	tags=33%	list=2%	signal=33%
WP_GPCRS_CLASS_A_RHODOPSIN LIKE	101	0.661371	1.644155	0.016482	0.533668	0.524215	2541	tags=35%	list=16%	signal=29%
REACTOME_TP53_REGULATES_METABOLIC_GENES	69	-0.72722	-1.89958	0.019031	0.556197	0.546345	2418	tags=54%	list=15%	signal=46%
REACTOME_NONSENSE_MEDIATED_DECAY_NMD	104	-0.67674	-1.82415	0.018503	0.556197	0.546345	3443	tags=73%	list=22%	signal=57%
REACTOME_CELLULAR_HEXOSE_TRANSPORT	11	0.913428	1.808328	0.019495	0.556197	0.546345	59	tags=18%	list=0%	signal=18%
REACTOME_REGULATION_BY_C_FLIP	9	0.911208	1.774597	0.019139	0.556197	0.546345	37	tags=11%	list=0%	signal=11%
WP_SYNTHESIS_AND_DEGRADATION_OF_KETONE_BODIES	5	-0.9252	-1.69569	0.020018	0.556197	0.546345	1071	tags=60%	list=7%	signal=56%
REACTOME_TRAIL_SIGNALING	5	0.944455	1.692181	0.018812	0.556197	0.546345	37	tags=20%	list=0%	signal=20%
WP_ESC_PLURIPOTENCY_PATHWAYS	105	0.648158	1.629273	0.020091	0.556197	0.546345	937	tags=16%	list=6%	signal=15%
REACTOME_DNA_DAMAGE_TELOMERE_STRESS_INDUCED_SENESC	24	-0.82608	-1.97894	0.022592	0.562561	0.552596	63	tags=17%	list=0%	signal=17%
WP_CYTOPLASMIC_RIBOSOMAL_PROTEINS	77	-0.73574	-1.9484	0.021345	0.562561	0.552596	3441	tags=90%	list=22%	signal=70%
REACTOME_ACTIVATION_OF_THE_MRNA_UPON_BINDING_OF_THE	58	-0.69557	-1.79868	0.023031	0.562561	0.552596	2672	tags=62%	list=17%	signal=52%
REACTOME_SYNTHESIS_OF_KETONE_BODIES	8	-0.87592	-1.76267	0.022844	0.562561	0.552596	114	tags=38%	list=1%	signal=37%
REACTOME KERATAN SULFATE KERATIN METABOLISM	32	0.782512	1.724739	0.022246	0.562561	0.552596	2132	tags=50%	list=14%	signal=43%
REACTOME_PHENYLALANINE_METABOLISM	5	-0.92133	-1.68861	0.021523	0.562561	0.552596	954	tags=40%	list=6%	signal=38%
REACTOME_PRE_NOTCH_PROCESSING_IN_GOLGI	5	0.941803	1.687429	0.021478	0.562561	0.552596	310	tags=60%	list=2%	signal=59%
REACTOME_EXTRACELLULAR_MATRIX_ORGANIZATION	208	0.576642	1.564587	0.02274	0.562561	0.552596	1345	tags=20%	list=9%	signal=18%
REACTOME_MITOCHONDRIAL_FATTY_ACID_BETA_OXIDATION	34	-0.77862	-1.95192	0.023833	0.566158	0.55613	2282	tags=85%	list=15%	signal=73%
WP_TGFBETA_SIGNALING_PATHWAY	46	0.731008	1.645989	0.02386	0.566158	0.55613	392	tags=11%	list=2%	signal=11%
REACTOME_CHEMOKINE_RECEPTORS_BIND_CHEMOKINES	19	-0.84764	-1.96585	0.046435	0.572489	0.562349	14	tags=11%	list=0%	signal=11%
REACTOME_CHOLESTEROL_BIOSYNTHESIS	26	-0.80706	-1.95343	0.035682	0.572489	0.562349	560	tags=35%	list=4%	signal=33%
REACTOME_RECYCLING_PATHWAY_OF_L1	32	-0.76484	-1.91939	0.035562	0.572489	0.562349	3130	tags=75%	list=20%	signal=60%
WP_TCA_CYCLE	30	-0.75856	-1.90438	0.03108	0.572489	0.562349	2331	tags=77%	list=15%	signal=65%
REACTOME_GLYCOXYLATE_METABOLISM_AND_GLYCINE_DEGRADATI	24	-0.77854	-1.86504	0.033302	0.572489	0.562349	1986	tags=67%	list=13%	signal=58%
REACTOME_AKT_PHOSPHORYLATES_TARGETS_IN_THE_CYTOSOL	11	-0.87032	-1.86204	0.055603	0.572489	0.562349	77	tags=36%	list=0%	signal=36%
REACTOME_FORMATION_OF_SENESCENCE_ASSOCIATED_HETEROCH	11	-0.86518	-1.85103	0.062437	0.572489	0.562349	63	tags=27%	list=0%	signal=27%
REACTOME_THE_ROLE_OF_GTS1_IN_G2_M_PROGRESSION_AFTER	69	-0.70624	-1.84478	0.032597	0.572489	0.562349	3105	tags=61%	list=20%	signal=49%
WP_CHOLESTEROL_METABOLISM_WITH_BLOCH_AND_KANDUTSCH	47	-0.71317	-1.83491	0.061611	0.572489	0.562349	560	tags=26%	list=4%	signal=25%
WP_AMINO_ACID_METABOLISM	76	-0.68836	-1.82817	0.038276	0.572489	0.562349	1565	tags=41%	list=10%	signal=37%
REACTOME_TRANSPORT_OF_CONNEXONS_TO_THE_PLASMA_MEM	13	-0.82148	-1.81921	0.083938	0.572489	0.562349	1568	tags=62%	list=10%	signal=55%
REACTOME_SEALING_OF_THE_NUCLEAR_ENVELOPE_NE_BY_ESCRT	21	-0.76068	-1.79647	0.057203	0.572489	0.562349	1568	tags=57%	list=10%	signal=52%
BIOCARTA_EGFR_SMRT_E_PATHWAY	11	0.90569	1.793008	0.027871	0.572489	0.562349	229	tags=27%	list=1%	signal=27%
REACTOME_INTRACELLULAR_FATTY_ACID_TRANSPORT	44	-0.70381	-1.78781	0.067797	0.572489	0.562349	1994	tags=45%	list=13%	signal=40%
REACTOME_GAP_JUNCTION_TRAFFICKING_AND_REGULATION	32	-0.71208	-1.78697	0.049646	0.572489	0.562349	1662	tags=47%	list=11%	signal=42%
BIOCARTA_RECK_PATHWAY	9	-0.86671	-1.78237	0.032217	0.572489	0.562349	589	tags=33%	list=4%	signal=32%
REACTOME_RAB_GERANYLGERANYLATION	57	-0.69306	-1.78119	0.061576	0.572489	0.562349	2548	tags=33%	list=16%	signal=28%



REACTOME_E3_UBIQUITIN_LIGASES_UBIQUITINATE_TARGET_PROTI	41	-0.70123	-1.76968	0.070588	0.572489	0.562349	1068	tags=22%	list=7%	signal=21%
REACTOME_ELEVATION_OF_CYTOSOLIC_CA2_LEVELS	12	0.870835	1.75495	0.034024	0.572489	0.562349	55	tags=8%	list=0%	signal=8%
REACTOME_INTEGRIN_SIGNALING	24	0.818442	1.750521	0.028444	0.572489	0.562349	101	tags=8%	list=1%	signal=8%
REACTOME_EPIGENETIC_REGULATION_OF_GENE_EXPRESSION	63	-0.66501	-1.74865	0.06326	0.572489	0.562349	1084	tags=19%	list=7%	signal=18%
REACTOME_GAP_JUNCTION_DEGRADATION	11	-0.81664	-1.74719	0.091777	0.572489	0.562349	931	tags=73%	list=6%	signal=68%
REACTOME_ACTIVATION_OF_MATRIX_METALLOPROTEINASES	16	-0.75497	-1.74661	0.059917	0.572489	0.562349	29	tags=12%	list=0%	signal=12%
BIOCARTA_HES_PATHWAY	10	0.886998	1.739117	0.037515	0.572489	0.562349	465	tags=30%	list=3%	signal=29%
BIOCARTA_AMAN_PATHWAY	7	0.916151	1.736686	0.028219	0.572489	0.562349	1221	tags=86%	list=8%	signal=79%
REACTOME_KINESINS	50	-0.67318	-1.73454	0.070048	0.572489	0.562349	1966	tags=38%	list=13%	signal=33%
WP_MATRIX_METALLOPROTEINASES	19	-0.74444	-1.72651	0.062635	0.572489	0.562349	1089	tags=16%	list=7%	signal=15%
REACTOME_KETONE_BODY_METABOLISM	9	-0.83944	-1.72631	0.05102	0.572489	0.562349	1692	tags=44%	list=11%	signal=40%
REACTOME_GP1B_IX_V_ACTIVATION_SIGNALLING	11	0.871466	1.725254	0.052124	0.572489	0.562349	364	tags=18%	list=2%	signal=18%
BIOCARTA_P53_PATHWAY	15	-0.75066	-1.72368	0.066116	0.572489	0.562349	523	tags=40%	list=3%	signal=39%
REACTOME_PRE_NOTCH_EXPRESSION_AND_PROCESSING	6	0.933506	1.723328	0.03429	0.572489	0.562349	310	tags=50%	list=2%	signal=49%
REACTOME_PYRUVATE_METABOLISM_AND_CITRIC_ACID_TCA_CYCLE	44	-0.67775	-1.7216	0.077482	0.572489	0.562349	1656	tags=59%	list=11%	signal=53%
REACTOME_G_PROTEIN_BETA_GAMMA_SIGNALING	30	-0.68564	-1.72131	0.068075	0.572489	0.562349	3418	tags=63%	list=22%	signal=50%
REACTOME_CHAPERONIN_MEDIATED_PROTEIN_FOLDING	35	-0.68687	-1.72088	0.071759	0.572489	0.562349	3418	tags=71%	list=22%	signal=56%
REACTOME_CITRIC_ACID_CYCLE_TCA_CYCLE	21	-0.72727	-1.71758	0.067797	0.572489	0.562349	1092	tags=95%	list=7%	signal=89%
REACTOME_PEROXISOMAL_PROTEIN_IMPORT	59	-0.65936	-1.71552	0.068966	0.572489	0.562349	2634	tags=41%	list=17%	signal=34%
REACTOME_PINK1_PRKN_MEDIATED_MITOPHAGY	21	-0.72598	-1.71453	0.067797	0.572489	0.562349	1234	tags=52%	list=8%	signal=48%
WP_GPCRS_SMALL_LIGAND	13	0.846463	1.712741	0.062016	0.572489	0.562349	20	tags=8%	list=0%	signal=8%
BIOCARTA_PS1_PATHWAY	12	0.847552	1.70803	0.067698	0.572489	0.562349	131	tags=17%	list=1%	signal=17%
REACTOME_SCF_SKP2_MEDIATED_DEGRADATION_OF_P27_P21	59	-0.65644	-1.70791	0.068966	0.572489	0.562349	3335	tags=59%	list=21%	signal=47%
REACTOME_ADENYLATE_CYCLASE_ACTIVATING_PATHWAY	10	0.870755	1.707269	0.060952	0.572489	0.562349	645	tags=30%	list=4%	signal=29%
REACTOME_CASPASE_ACTIVATION_VIA_DEATH_RECEPTORS_IN_THI	14	0.834567	1.70006	0.060665	0.572489	0.562349	37	tags=7%	list=0%	signal=7%
REACTOME_PROTEIN_LOCALIZATION	93	-0.63509	-1.69915	0.028546	0.572489	0.562349	2873	tags=44%	list=18%	signal=36%
WP_OMEGA3_OMEGA6_FATTY_ACID_SYNTHESIS	15	-0.73939	-1.69779	0.076446	0.572489	0.562349	1368	tags=27%	list=9%	signal=24%
REACTOME KERATAN SULFATE BIOSYNTHESIS	26	0.786486	1.696954	0.039439	0.572489	0.562349	2132	tags=50%	list=14%	signal=43%
REACTOME_CONDENSATION_OF_PROPHASE_CHROMOSOMES	27	-0.68935	-1.69427	0.071429	0.572489	0.562349	2028	tags=37%	list=13%	signal=32%
WP_SPHINGOLIPID_METABOLISM_INTEGRATED_PATHWAY	25	0.787419	1.693123	0.050204	0.572489	0.562349	548	tags=20%	list=3%	signal=19%
BIOCARTA_HSP27_PATHWAY	12	0.840076	1.692963	0.073501	0.572489	0.562349	43	tags=8%	list=0%	signal=8%
WP_GDNFRET_SIGNALING_AXIS	18	0.825016	1.69172	0.049149	0.572489	0.562349	1421	tags=50%	list=9%	signal=46%
REACTOME_UBIQUITIN_MEDIATED_DEGRADATION_OF_PHOSPHOR'	50	-0.65619	-1.69076	0.07971	0.572489	0.562349	3335	tags=62%	list=21%	signal=49%
REACTOME_PLATELET_ADHESION_TO_EXPOSED_COLLAGEN	9	0.867966	1.690382	0.070313	0.572489	0.562349	364	tags=22%	list=2%	signal=22%
REACTOME_ADENYLATE_CYCLASE_INHIBITORY_PATHWAY	13	0.834883	1.68931	0.077519	0.572489	0.562349	645	tags=23%	list=4%	signal=22%
WP_ACE_INHIBITOR_PATHWAY	6	0.914494	1.68823	0.058321	0.572489	0.562349	541	tags=33%	list=3%	signal=32%
REACTOME_PROSTACYCLIN_SIGNALING_THROUGH_PROSTACYCLIN	16	-0.72972	-1.6882	0.078512	0.572489	0.562349	3418	tags=81%	list=22%	signal=64%
REACTOME_DOWNREGULATION_OF_ERBB2_ERBB3_SIGNALING	12	-0.7817	-1.6866	0.065979	0.572489	0.562349	676	tags=42%	list=4%	signal=40%
REACTOME_PHENYLALANINE_AND_TYROSINE_METABOLISM	7	-0.85036	-1.68637	0.038712	0.572489	0.562349	954	tags=43%	list=6%	signal=40%
REACTOME_SPHINGOLIPID_DE_NOVO_BIOSYNTHESIS	33	0.764651	1.686266	0.033207	0.572489	0.562349	548	tags=18%	list=3%	signal=18%
REACTOME_G_BETA_GAMMA_SIGNALING_THROUGH_CDC42	18	-0.73011	-1.68615	0.067653	0.572489	0.562349	3418	tags=78%	list=22%	signal=61%
BIOCARTA_NEUTROPHIL_PATHWAY	7	0.887225	1.681854	0.063872	0.572489	0.562349	102	tags=14%	list=1%	signal=14%
REACTOME_APC_C_CDH1_MEDIATED_DEGRADATION_OF_CDC20_A	72	-0.64148	-1.67937	0.066838	0.572489	0.562349	3554	tags=60%	list=23%	signal=46%
REACTOME_TPS3_REGULATES_TRANSCRIPTION_OF_GENES_INVOLV	10	-0.8408	-1.67915	0.0587	0.572489	0.562349	41	tags=20%	list=0%	signal=20%
REACTOME_DEGRADATION_OF_CYSSTEINE_AND_HOMOCYSSTEINE	13	-0.75799	-1.67861	0.063786	0.572489	0.562349	1199	tags=31%	list=8%	signal=28%
REACTOME_APOPTOTIC_CLEAVAGE_OF_CELL_ADHESION_PROTEINS	7	0.88456	1.676801	0.065868	0.572489	0.562349	18	tags=14%	list=0%	signal=14%
WP_SPHINGOLIPID_METABOLISM_OVERVIEW	24	0.783317	1.675393	0.045045	0.572489	0.562349	548	tags=17%	list=3%	signal=16%
WP_SIGNAL_TRANSDUCTION_OF_S1P_RECEPTOR	21	-0.70935	-1.67526	0.072034	0.572489	0.562349	941	tags=19%	list=6%	signal=18%
REACTOME_CA2_ACTIVATED_K_CHANNELS	6	0.907336	1.675015	0.052632	0.572489	0.562349	72	tags=17%	list=0%	signal=17%
REACTOME_ACTIVATION_OF_APC_C_AND_APC_C_CDC20_MEDIATE	75	-0.63361	-1.67433	0.069948	0.572489	0.562349	3348	tags=55%	list=21%	signal=43%
REACTOME_DECTIN_1_MEDIATED_NONCANONICAL_NF_KB_SIGNAL	56	-0.65317	-1.67344	0.079012	0.572489	0.562349	3335	tags=62%	list=21%	signal=49%
REACTOME_FORMATION_OF_THE_CORNIFIED_ENVELOPE	25	0.778068	1.673019	0.045936	0.572489	0.562349	160	tags=8%	list=1%	signal=8%
REACTOME_KERATINIZATION	25	0.778068	1.673019	0.045936	0.572489	0.562349	160	tags=8%	list=1%	signal=8%
REACTOME_BRANCHED_CHAIN_AMINO_ACID_CATABOLISM	20	-0.7117	-1.67161	0.076433	0.572489	0.562349	2280	tags=55%	list=15%	signal=47%
REACTOME_REGULATION_OF_GENE_EXPRESSION_BY_HYPOXIA_INC	6	0.905398	1.671437	0.052632	0.572489	0.562349	392	tags=33%	list=2%	signal=33%
REACTOME_MITOCHONDRIAL_FATTY_ACID_BETA_OXIDATION_OF_S	9	-0.81103	-1.66789	0.061224	0.572489	0.562349	2976	tags=100%	list=19%	signal=81%
BIOCARTA_BLYMPHOCYTE_PATHWAY	7	0.879666	1.667524	0.067864	0.572489	0.562349	102	tags=14%	list=1%	signal=14%
REACTOME_ASSEMBLY_OF_ACTIVE_LPL_AND_LIPC_LIPASE_COMPLE	7	-0.83963	-1.66509	0.039912	0.572489	0.562349	46	tags=29%	list=0%	signal=29%
REACTOME_ACYL_CHAIN_REMODELLING_OF_PI	8	-0.82661	-1.66344	0.051896	0.572489	0.562349	264	tags=38%	list=2%	signal=37%
BIOCARTA_FREE_PATHWAY	7	0.877391	1.663212	0.067864	0.572489	0.562349	62	tags=14%	list=0%	signal=14%
WP_EICOSANOID_LIPID_SYNTHESIS_MAP	9	-0.80827	-1.66221	0.061224	0.572489	0.562349	48	tags=22%	list=0%	signal=22%
REACTOME_GLUconeogenesis	27	-0.67598	-1.66141	0.082949	0.572489	0.562349	2821	tags=59%	list=18%	signal=49%
REACTOME_KERATAN_SULFATE_DEGRADATION	12	0.822761	1.658068	0.087041	0.572489	0.562349	2033	tags=50%	list=13%	signal=44%
REACTOME_BIOTIN_TRANSPORT_AND_METABOLISM	11	-0.77426	-1.65651	0.07438	0.572489	0.562349	1160	tags=64%	list=7%	signal=59%
BIOCARTA_LYMPHOCYTE_PATHWAY	8	0.849515	1.655853	0.083832	0.572489	0.562349	102	tags=12%	list=1%	signal=12%
REACTOME_SULFUR_AMINO_ACID_METABOLISM	21	-0.70055	-1.65448	0.074153	0.572489	0.562349	1199	tags=29%	list=8%	signal=23%
WP_PTF1A_RELATED_REGULATORY_PATHWAY	8	0.84732	1.651574	0.087824	0.572489	0.562349	124	tags=12%	list=1%	signal=12%
REACTOME_RAB_GEF5_EXCHANGE_GTP_FOR_GDP_ON_RABS	86	-0.61638	-1.65135	0.059556	0.572489	0.562349	1439	tags=17%	list=9%	signal=16%
REACTOME_REGULATION_OF_PTEEN_STABILITY_AND_ACTIVITY	67	-0.63147	-1.65115	0.072864	0.572489	0.562349	3335	tags=55%	list=21%	signal=44%
REACTOME_DETOXIFICATION_OF_REACTIVE_OXYGEN_SPECIES	30	-0.65759	-1.65089	0.08216	0.572489	0.562349	1920	tags=53%	list=12%	signal=47%
WP_HFE_EFFECT_ON_HEPCIDIN_PRODUCTION	5	0.92126	1.650622	0.031856	0.572489	0.562349	488	tags=40%	list=3%	signal=39%
REACTOME_CASPASE_ACTIVATION_VIA_EXTRINSIC_APOPTOTIC_SIG	18	0.804381	1.649407	0.064272	0.572489	0.562349	37	tags=6%	list=0%	signal=6%
REACTOME_ECM_PROTEOGLYCANS	42	0.732736	1.6487	0.025403	0.572489	0.562349	607	tags=14%	list=4%	signal=14%
WP_FATTY_ACID_BETAoxidation	30	-0.65611	-1.64718	0.08216	0.572489	0.562349	2976	tags=53%	list=19%	signal=43%
REACTOME_GLI3_IS_PROCESSED_TO_GLI3R_BY_THE_PROTEASOME	56	-0.64267	-1.64653	0.08642	0.572489	0.562349	3355	tags=62%	list=21%	signal=49%
BIOCARTA_CTL_PATHWAY	7	0.86817	1.645732	0.075848	0.572489	0.562349	102	tags=14%	list=1%	signal=14%
WP_BLOOD_CLOTTING_CASCADE	9	0.843383	1.642506	0.089844	0.572489	0.562349	73	tags=11%	list=0%	signal=11%
REACTOME_NA_CL_DEPENDENT_NEUROTRANSMITTER_TRANSPORT	13	0.809423	1.637793	0.100775	0.572489	0.562349	262	tags=23%	list=2%	signal=23%
REACTOME_AQUAPORIN_MEDIATED_TRANSPORT	29	-0.66028	-1.6366	0.084507	0.572489	0.562349	3927	tags=69%	list=25%	signal=52%
BIOCARTA_PLCD_PATHWAY	5	0.913161	1.636112	0.053465	0.572489	0.562349	136	tags=20%	list=1%	signal=20%
BIOCARTA_MONOCYTE_PATHWAY	9	0.839313	1.634581	0.09375	0.572489	0.562349	102	tags=11%	list=1%	signal=11%
REACTOME_G_BETA_GAMMA_SIGNALING_THROUGH_PI3KGAMM	23	-0.68396	-1.63198	0.0837	0.572489	0.562349	3418	tags=61%	list=22%	signal=48%
BIOCARTA_DEATH_PATHWAY	30	0.74464	1.631006	0.057292	0.572489	0.562349	37	tags=3%	list=0%	signal=3%
REACTOME_IMMUNOREGULATORY_INTERACTIONS_BETWEEN_A_LI	62	0.701645	1.628284	0.026577	0.572489	0.562349	604	tags=8%	list=4%	signal=8%
WP_WNT_SIGNALING_PATHWAY_WP403	57	0.704318	1.62781	0.026487	0.572489	0.562349	275	tags=9%	list=2%	signal=9%
REACTOME_TERMINATION_OF_O_GLYCAN_BIOSYNTHESIS	10	0.830065	1.627489	0.104762	0.572489	0.562349	1438	tags=40%	list=9%	signal=36%
BIOCARTA_TCYTOTOXIC_PATHWAY	5	0.905765	1.62286	0.057426	0.572489	0.562349	102	tags=20%	list=1%	signal=20%
REACTOME_MAJOR_PATHWAY_OF_RRNA_PROCESSING_IN_THE_NL	167	-0.59809	-1.62272	0.038645	0.572489	0.562349	3339	tags=55%	list=21%	signal=44%
REACTOME_CDK_MEDIATED_PHOSPHORYLATION_AND_REMOVAL_I	71	-0.62118	-1.61923	0.079897	0.572489	0.562349	3554	tags=58%	list=23%	signal=45%
REACTOME_G1_S_DNA_DAMAGE_CHECKPOINTS	65	-0.61687	-1.6187	0.089109	0.572489	0.562349	3335	tags=52%	list=21%	signal=41%



BIOCARTA_MELANOCYTE_PATHWAY	7	0.853207	1.617367	0.083832	0.572489	0.562349	1291 tags=43%	list=8%	signal=39%
REACTOME_CTLA4_INHIBITORY_SIGNALING	20	-0.68835	-1.61678	0.091295	0.572489	0.562349	1889 tags=50%	list=12%	signal=44%
REACTOME_STABILIZATION_OF_P53	54	-0.62675	-1.61625	0.089372	0.572489	0.562349	3335 tags=59%	list=21%	signal=47%
REACTOME_GAP_JUNCTION_ASSEMBLY	20	-0.68788	-1.61565	0.091295	0.572489	0.562349	1568 tags=40%	list=10%	signal=36%
REACTOME_APOPTOTIC_CLEAVAGE_OF_CELLULAR_PROTEINS	34	0.73258	1.614404	0.059441	0.572489	0.562349	97 tags=6%	list=1%	signal=6%
BIOCARTA_THELPER_PATHWAY	6	0.874171	1.613791	0.072125	0.572489	0.562349	102 tags=17%	list=1%	signal=17%
REACTOME_REGULATION_OF_RUNX3_EXPRESSION_AND_ACTIVITY	52	-0.63331	-1.61344	0.088235	0.572489	0.562349	3335 tags=65%	list=21%	signal=52%
REACTOME_N_GLYCAN_ANTENNAE_ELONGATION_IN_THE_MEDIAL	23	0.757781	1.612663	0.069343	0.572489	0.562349	2916 tags=70%	list=19%	signal=57%
REACTOME_MAP2K_AND_MAPK_ACTIVATION	35	0.731445	1.612245	0.054386	0.572489	0.562349	325 tags=14%	list=2%	signal=14%
REACTOME_KEAP1_NFE2L2_PATHWAY	74	-0.61012	-1.61007	0.083117	0.572489	0.562349	3355 tags=51%	list=21%	signal=41%
BIOCARTA_EEA1_PATHWAY	5	0.898353	1.60958	0.063366	0.572489	0.562349	140 tags=20%	list=1%	signal=20%
REACTOME_EICOSANOIDS	6	0.871644	1.609125	0.072125	0.572489	0.562349	180 tags=17%	list=1%	signal=16%
REACTOME_N_GLYCAN_ANTENNAE_ELONGATION	15	0.787468	1.607994	0.108108	0.572489	0.562349	2019 tags=60%	list=13%	signal=52%
REACTOME_SUMOYLATION_OF_DNA_DAMAGE_RESPONSE_AND_RI	71	-0.61674	-1.60766	0.079897	0.572489	0.562349	11 tags=4%	list=0%	signal=4%
WP_BURN_WOUND_HEALING	16	0.788455	1.60587	0.096525	0.572489	0.562349	65 tags=6%	list=0%	signal=6%
WP_GLYCOGEN_METABOLISM	32	-0.63938	-1.60453	0.084309	0.572489	0.562349	2935 tags=59%	list=19%	signal=48%
REACTOME_VEGF_LIGAND_RECEPTOR_INTERACTIONS	8	0.821721	1.601676	0.105788	0.572489	0.562349	79 tags=12%	list=1%	signal=12%
REACTOME_APC_C_MEDIATED_DEGRADATION_OF_CELL_CYCLE_PRI	85	-0.60163	-1.5983	0.075419	0.572489	0.562349	3554 tags=53%	list=23%	signal=41%
WP_DELTANOTCH_SIGNALING_PATHWAY	80	0.6659	1.597474	0.036324	0.572489	0.562349	2978 tags=40%	list=19%	signal=33%
REACTOME_VASOPRESSIN_REGULATES_RENAL_WATER_HOMEOSTA	26	-0.6597	-1.59676	0.089862	0.572489	0.562349	3927 tags=73%	list=25%	signal=55%
WP_GENE_REGULATORY_NETWORK_MODELLING_SOMITOGENESIS	8	0.818972	1.596318	0.10978	0.572489	0.562349	1720 tags=50%	list=11%	signal=45%
REACTOME_SYNDECAN_INTERACTIONS	13	0.788598	1.595657	0.125969	0.572489	0.562349	179 tags=15%	list=1%	signal=15%
REACTOME_INTRINSIC_PATHWAY_OF_FIBRIN_CLOT_FORMATION	14	0.783245	1.595515	0.123288	0.572489	0.562349	781 tags=14%	list=5%	signal=14%
REACTOME_ACTIVATION_OF_NF_KAPPA_B_IN_B_CELLS	62	-0.6088	-1.59504	0.093137	0.572489	0.562349	3335 tags=56%	list=21%	signal=45%
WP_PENTOSE_PHOSPHATE_PATHWAY	7	-0.8043	-1.59502	0.057884	0.572489	0.562349	2564 tags=86%	list=16%	signal=72%
REACTOME_FATTY_ACIDS	6	0.863843	1.594724	0.081871	0.572489	0.562349	1177 tags=50%	list=7%	signal=46%
REACTOME_O_LINKED_GLYCOSYLATION_OF_MUCINS	41	0.71388	1.59379	0.057192	0.572489	0.562349	3936 tags=71%	list=25%	signal=53%
REACTOME_AMINE_LIGAND_BINDING_RECEPTORS	30	0.727138	1.592671	0.065972	0.572489	0.562349	2310 tags=47%	list=15%	signal=40%
BIOCARTA_VITCB_PATHWAY	10	0.811357	1.59081	0.118095	0.572489	0.562349	59 tags=10%	list=0%	signal=10%
REACTOME_PROPIONYL_COA_CATABOLISM	5	-0.86783	-1.59054	0.050302	0.572489	0.562349	1389 tags=80%	list=9%	signal=73%
REACTOME_EPH_EPHRIN_MEDIATED_REPULSION_OF_CELLS	34	0.72149	1.589965	0.068182	0.572489	0.562349	1720 tags=38%	list=11%	signal=34%
REACTOME_PURINE_CATABOLISM	17	0.77981	1.586104	0.101727	0.572489	0.562349	62 tags=6%	list=0%	signal=6%
REACTOME_NUCLEAR_EVENTS_MEDIATED_BY_NFE2L2	53	-0.61759	-1.58537	0.093976	0.572489	0.562349	3355 tags=66%	list=21%	signal=52%
WP_PROTEASOME_DEGRADATION	47	-0.61606	-1.58507	0.099526	0.572489	0.562349	3292 tags=57%	list=21%	signal=46%
WP_FAS_PATHWAY_AND_STRESS_INDUCED_HSP_REGULATIO	34	0.718904	1.584265	0.06993	0.572489	0.562349	490 tags=9%	list=3%	signal=9%
BIOCARTA_PGC1A_PATHWAY	13	0.782509	1.583335	0.127907	0.572489	0.562349	661 tags=23%	list=4%	signal=22%
WP_GPCRS_ORPHAN	6	0.777247	1.583041	0.117761	0.572489	0.562349	414 tags=19%	list=3%	signal=18%
REACTOME_CALCITONIN_LIKE_LIGAND_RECEPTORS	6	0.857408	1.582844	0.08577	0.572489	0.562349	66 tags=17%	list=0%	signal=17%
WP_NUCLEOTIDE_GPCRS	10	0.807269	1.582794	0.125714	0.572489	0.562349	93 tags=10%	list=1%	signal=10%
REACTOME_RAS_PROCESSING	23	-0.66328	-1.58264	0.096916	0.572489	0.562349	2489 tags=57%	list=16%	signal=48%
REACTOME_NEUROTRANSMITTER_RECEPTORS_AND_POSTSYNAPTIC	128	0.620057	1.582293	0.031835	0.572489	0.562349	1069 tags=13%	list=7%	signal=12%
REACTOME_ETHANOL_OXIDATION	6	-0.83866	-1.58163	0.051125	0.572489	0.562349	1623 tags=83%	list=10%	signal=75%
REACTOME_METABOLISM_OF_POLYAMINES	55	-0.61229	-1.57973	0.095122	0.572489	0.562349	3554 tags=62%	list=23%	signal=48%
REACTOME_SYNTHESIS_OF_PIP5_AT_THE_LATE_ENDOSOME_MEME	10	0.805225	1.578786	0.127619	0.572489	0.562349	1603 tags=40%	list=10%	signal=36%
REACTOME_VLDLR_INTERNALISATION_AND_DEGRADATION	16	-0.68233	-1.57855	0.10124	0.572489	0.562349	2489 tags=69%	list=16%	signal=58%
BIOCARTA_CB1R_PATHWAY	5	0.880789	1.578111	0.075248	0.572489	0.562349	1204 tags=40%	list=8%	signal=37%
BIOCARTA_GSK3_PATHWAY	20	0.759258	1.575782	0.096045	0.572489	0.562349	131 tags=10%	list=1%	signal=10%
WP_BMP_SIGNALING_PATHWAY_IN_EYELID_DEVELOPMENT	19	0.756224	1.575696	0.103896	0.572489	0.562349	1421 tags=32%	list=9%	signal=29%
REACTOME_PROTEIN_UBIQUITINATION	61	-0.60277	-1.57545	0.093137	0.572489	0.562349	2489 tags=28%	list=16%	signal=24%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_RUNX2	62	-0.60109	-1.57485	0.098039	0.572489	0.562349	3355 tags=58%	list=21%	signal=46%
WP_NOTCH_SIGNALING_PATHWAY	44	0.699973	1.573577	0.056027	0.572489	0.562349	2481 tags=39%	list=16%	signal=33%
BIOCARTA_MALATEX_PATHWAY	8	-0.78181	-1.57328	0.05988	0.572489	0.562349	3434 tags=100%	list=22%	signal=78%
REACTOME_METABOLISM_OF_AMINO_ACIDS_AND_DERIVATIVES	208	-0.57224	-1.57116	0.087227	0.572489	0.562349	2079 tags=37%	list=13%	signal=33%
REACTOME_COPI_DEPENDENT_GOLGI_TO_ER_RETROGRADE_TRAFF	89	-0.58351	-1.57076	0.088398	0.572489	0.562349	2950 tags=43%	list=19%	signal=35%
REACTOME_KSRP_KHSRP_BINDS_AND_DESTABILIZES_MRNA	14	-0.69506	-1.57059	0.09165	0.572489	0.562349	3659 tags=64%	list=23%	signal=49%
REACTOME_RHO_GTPASES_ACTIVAT_KTN1	11	-0.7339	-1.57017	0.092975	0.572489	0.562349	3395 tags=91%	list=22%	signal=71%
REACTOME_DEGRADATION_OF_DVL	55	-0.60813	-1.56901	0.095122	0.572489	0.562349	3355 tags=58%	list=21%	signal=46%
REACTOME_BETA_OXIDATION_OF_HEXANOYL_COA_TO_BUTANOYL	5	-0.85503	-1.56709	0.060362	0.572489	0.562349	2282 tags=100%	list=15%	signal=85%
REACTOME_VITAMIN_C_ASCORBATE_METABOLISM	7	0.826073	1.565932	0.0998	0.572489	0.562349	59 tags=14%	list=0%	signal=14%
REACTOME_MITOPHAGY	28	-0.6357	-1.56421	0.100703	0.572489	0.562349	3161 tags=54%	list=20%	signal=43%
REACTOME_PEXOPHAGY	10	-0.74861	-1.56192	0.08805	0.572489	0.562349	2709 tags=50%	list=17%	signal=41%
BIOCARTA_ATM_PATHWAY	19	-0.67293	-1.56067	0.112311	0.572489	0.562349	523 tags=21%	list=3%	signal=20%
BIOCARTA_P38MAPK_PATHWAY	32	0.707643	1.55972	0.086957	0.572489	0.562349	1518 tags=25%	list=10%	signal=23%
REACTOME_PKA_MEDIATED_PHOSPHORYLATION_OF_CREB	17	0.766436	1.558901	0.115163	0.572489	0.562349	645 tags=18%	list=4%	signal=17%
BIOCARTA_FXR_PATHWAY	4	0.907988	1.557444	0.061753	0.572489	0.562349	652 tags=50%	list=4%	signal=48%
WP_OXIDATIVE_DAMAGE_RESPONSE	37	0.705324	1.557207	0.073427	0.572489	0.562349	600 tags=11%	list=4%	signal=10%
WP_GPCRS_OTHER	48	0.684859	1.556975	0.056799	0.572489	0.562349	1998 tags=29%	list=13%	signal=26%
REACTOME_DEPOSITION_OF_NEW_CENPA_CONTAINING_NUCLEOS	43	-0.61593	-1.55536	0.101695	0.572489	0.562349	1961 tags=23%	list=12%	signal=20%
REACTOME_FORMATION_OF_FIBRIN_CLOT_CLOTTING_CASCADE	24	0.727072	1.555095	0.099099	0.572489	0.562349	2242 tags=33%	list=14%	signal=29%
REACTOME_TBC_RABGAPS	34	-0.61995	-1.55413	0.106977	0.572489	0.562349	2507 tags=35%	list=16%	signal=30%
REACTOME_BETA_OXIDATION_OF_DECANOYL_COA_TO_OCTANOYL	6	-0.82356	-1.55315	0.055215	0.572489	0.562349	2777 tags=100%	list=18%	signal=82%
REACTOME_ACETYLCHOLINE_NEUROTRANSMITTER_RELEASE_CYCLE	17	-0.67225	-1.55149	0.108108	0.572489	0.562349	1851 tags=35%	list=12%	signal=31%
BIOCARTA_WNT_LRP6_PATHWAY	3	0.961209	1.550365	0.026306	0.572489	0.562349	131 tags=33%	list=1%	signal=33%
REACTOME_RAB_REGULATION_OF_TRAFFICKING	112	-0.5811	-1.54916	0.080925	0.572489	0.562349	1321 tags=17%	list=8%	signal=16%
REACTOME_ASSEMBLY_OF_THE_PRE_REPLICATIVE_COMPLEX	81	-0.57755	-1.5486	0.090186	0.572489	0.562349	3554 tags=53%	list=23%	signal=41%
WP_INFLAMMATORY_RESPONSE_PATHWAY	22	0.729096	1.547588	0.106618	0.572489	0.562349	2287 tags=32%	list=15%	signal=27%
REACTOME_P2Y_RECEPTORS	9	0.79434	1.546995	0.128906	0.572489	0.562349	93 tags=11%	list=1%	signal=11%
REACTOME_RETROGRADE_NEUROTROPHIN_SIGNALING	11	-0.723	-1.54685	0.103306	0.572489	0.562349	3130 tags=73%	list=20%	signal=48%
WP_P38_MAPK_SIGNALING_PATHWAY	33	0.701392	1.546762	0.095652	0.572489	0.562349	1518 tags=27%	list=10%	signal=25%
REACTOME_CELLULAR_RESPONSE_TO_CHEMICAL_STRESS	148	-0.57363	-1.54658	0.074928	0.572489	0.562349	2063 tags=37%	list=13%	signal=33%
REACTOME_DISASSEMBLY_OF_THE_DESTRUCTION_COMPLEX_AND	26	0.716387	1.545706	0.102113	0.572489	0.562349	131 tags=8%	list=1%	signal=8%
REACTOME_NOREPINEPHRINE_NEUROTRANSMITTER_RELEASE_CYC	18	-0.66892	-1.54484	0.114165	0.572489	0.562349	1851 tags=33%	list=12%	signal=29%
REACTOME_ADP_SIGNALING_THROUGH_P2Y_PURINOCEPTOR_12	19	-0.66589	-1.54433	0.114471	0.572489	0.562349	3418 tags=68%	list=22%	signal=54%
REACTOME_CROSS_PRESENTATION_OF_SOLUBLE_EXOGENOUS_AN	46	-0.59873	-1.54366	0.106635	0.572489	0.562349	3335 tags=61%	list=21%	signal=48%
REACTOME_GLYCOGEN_METABOLISM	17	-0.66883	-1.5436	0.108108	0.572489	0.562349	2200 tags=53%	list=14%	signal=46%
REACTOME_XENOBIOTICS	9	0.791691	1.541836	0.128906	0.572489	0.562349	1451 tags=56%	list=9%	signal=50%
REACTOME_YAP1_AND_WWTR1_TAZ_STIMULATED_GENE_EXPRESS	7	-0.77742	-1.54171	0.071856	0.572489	0.562349	76 tags=29%	list=0%	signal=28%
REACTOME_BETA_OXIDATION_OF_LAULOYL_COA_TO_DECANOYL_C	5	-0.84087	-1.54113	0.062374	0.572489	0.562349	1169 tags=100%	list=7%	signal=93%
BIOCARTA_CALCINEURIN_PATHWAY	17	-0.66759	-1.54073	0.110187	0.572489	0.562349	591 tags=12%	list=4%	signal=11%
BIOCARTA_BAD_PATHWAY	23	0.723968	1.540704	0.109489	0.572489	0.562349	1021 tags=17%	list=7%	signal=16%



REACTOME_CROSSLINKING_OF_COLLAGEN_FIBRILS	15	-0.67054	-1.53971	0.11157	0.572489	0.562349	31	tags=13%	list=0%	signal=13%
REACTOME_PHASE_4_RESTING_MEMBRANE_POTENTIAL	14	0.754305	1.536562	0.146771	0.572489	0.562349	2017	tags=36%	list=13%	signal=31%
REACTOME_COPI_MEDIATED_ANTEROGRADE_TRANSPORT	89	-0.57007	-1.53457	0.09116	0.572489	0.562349	3169	tags=49%	list=20%	signal=40%
REACTOME_MITOCHONDRIAL_IRON_SULFUR_CLUSTER_BIOGENESIS	12	-0.71118	-1.53443	0.103093	0.572489	0.562349	4000	tags=75%	list=25%	signal=56%
REACTOME_SIGNALING_BY_BMP	25	0.713307	1.533768	0.106007	0.572489	0.562349	1537	tags=28%	list=10%	signal=25%
BIOCARTA_GCR_PATHWAY	15	0.750469	1.532444	0.146718	0.572489	0.562349	65	tags=7%	list=0%	signal=7%
REACTOME_BETA_OXIDATION_OF_OCTANOYL_COA_TO_HEXANOYL	5	-0.83593	-1.53208	0.064386	0.572489	0.562349	1169	tags=100%	list=7%	signal=93%
BIOCARTA_TFF_PATHWAY	21	0.735056	1.531907	0.109434	0.572489	0.562349	27	tags=5%	list=0%	signal=5%
REACTOME_PRESYNAPTIC_FUNCTION_OF_KAINATE_RECEPTORS	19	-0.66018	-1.53108	0.116631	0.572489	0.562349	3418	tags=79%	list=22%	signal=62%
WP_ADIPOGENESIS_GENES	109	0.607229	1.529584	0.039877	0.572489	0.562349	1291	tags=18%	list=8%	signal=17%
BIOCARTA_EPONFKB_PATHWAY	10	-0.73271	-1.52875	0.09434	0.572489	0.562349	41	tags=20%	list=0%	signal=20%
REACTOME_HEPARAN_SULFATE_HEPARIN_HS_GAG_METABOLISM	50	0.668138	1.528086	0.069728	0.572489	0.562349	3973	tags=60%	list=25%	signal=45%
REACTOME_TRANSPORT_OF_INORGANIC_CATIONS_ANIONS_AND_I	89	0.627255	1.527695	0.045313	0.572489	0.562349	2351	tags=36%	list=15%	signal=31%
REACTOME_MET_ACTIVATES_PTK2_SIGNALING	20	0.736046	1.527608	0.122411	0.572489	0.562349	2195	tags=35%	list=14%	signal=30%
REACTOME_SEROTONIN_NEUROTRANSMITTER_RELEASE_CYCLE	18	-0.66074	-1.52596	0.116279	0.572489	0.562349	4040	tags=67%	list=26%	signal=50%
REACTOME_SIGNALING_BY_NOTCH	38	0.686574	1.525347	0.09282	0.572489	0.562349	1487	tags=29%	list=9%	signal=26%
WP_IL3_SIGNALING_PATHWAY	95	0.618154	1.524172	0.049422	0.572489	0.562349	365	tags=6%	list=2%	signal=6%
REACTOME_ASSOCIATION_OF_TRIC_CCT_WITH_TARGET_PROTEINS	9	-0.74072	-1.52327	0.091837	0.572489	0.562349	3264	tags=89%	list=21%	signal=70%
REACTOME_AZATHIOPRINE_ADME	19	0.731059	1.523262	0.139147	0.572489	0.562349	122	tags=11%	list=1%	signal=10%
WP_TRYPTOPHAN_METABOLISM	33	-0.61461	-1.52317	0.112412	0.572489	0.562349	2300	tags=42%	list=15%	signal=36%
REACTOME_MRNA_DECAY_BY_3_TO_5_EXORIBONUCLEASE	12	-0.7056	-1.52241	0.109278	0.572489	0.562349	3683	tags=75%	list=23%	signal=57%
REACTOME_CARBOXYTERMINAL_POST_TRANSLATIONAL_MODIFICA	21	-0.64456	-1.52226	0.114407	0.572489	0.562349	1568	tags=38%	list=10%	signal=34%
REACTOME_DOWNSTREAM_SIGNALING_EVENTS_OF_B_CELL_RECEF	76	-0.5723	-1.51994	0.119481	0.572489	0.562349	3554	tags=57%	list=23%	signal=44%
REACTOME_PYRUVATE_METABOLISM	21	-0.64352	-1.5198	0.116525	0.572489	0.562349	1638	tags=52%	list=10%	signal=47%
REACTOME_RND1_GTPASE_CYCLE	40	0.682501	1.519253	0.086957	0.572489	0.562349	279	tags=8%	list=2%	signal=7%
REACTOME_SWITCHING_OF_ORIGINS_TO_A_POST_REPLICATIVE_ST	89	-0.56416	-1.51867	0.093923	0.572489	0.562349	3554	tags=51%	list=23%	signal=39%
REACTOME_COLLAGEN_BIOSYNTHESIS_AND_MODIFYING_ENZYMES	63	0.65566	1.517852	0.055838	0.572489	0.562349	3382	tags=54%	list=22%	signal=43%
REACTOME_DOPAMINE_NEUROTRANSMITTER_RELEASE_CYCLE	23	-0.63611	-1.51781	0.121145	0.572489	0.562349	4040	tags=57%	list=26%	signal=42%
REACTOME_DOWNREGULATION_OF_ERBB2_SIGNALING	24	-0.63303	-1.51647	0.118568	0.572489	0.562349	2057	tags=38%	list=13%	signal=33%
REACTOME_APC_C_CDC20_MEDIATED_DEGRADATION_OF_CYCLIN	24	-0.63252	-1.51525	0.118568	0.572489	0.562349	3348	tags=46%	list=21%	signal=36%
BIOCARTA_NOTCH_PATHWAY	6	0.820466	1.514646	0.11501	0.572489	0.562349	1487	tags=50%	list=9%	signal=45%
WP_INSULIN_SIGNALING	153	0.57949	1.514543	0.038836	0.572489	0.562349	1021	tags=14%	list=7%	signal=13%
REACTOME_EPHA_MEDIATED_GROWTH_CONE_COLLAPSE	18	0.737725	1.512727	0.141777	0.572489	0.562349	1720	tags=44%	list=11%	signal=40%
BIOCARTA_GH_PATHWAY	25	0.703427	1.512522	0.121908	0.572489	0.562349	1518	tags=20%	list=10%	signal=18%
WP_APOPTOSIS	71	0.635897	1.508472	0.050489	0.572489	0.562349	1576	tags=14%	list=10%	signal=13%
REACTOME_APC_CDC20_MEDIATED_DEGRADATION_OF_NEK2A	26	-0.62297	-1.50787	0.131336	0.572489	0.562349	3348	tags=46%	list=21%	signal=36%
REACTOME_PLASMA_LIPOPROTEIN_REMODELING	15	-0.65662	-1.50774	0.121901	0.572489	0.562349	46	tags=13%	list=0%	signal=13%
REACTOME_REGULATION_OF_LOCALIZATION_OF_FOXO_TRANSCRIF	12	-0.69841	-1.50689	0.11134	0.572489	0.562349	2365	tags=42%	list=15%	signal=35%
REACTOME_RUNX3_REGULATES_WNT_SIGNALING	5	0.840953	1.506737	0.10297	0.572489	0.562349	82	tags=20%	list=1%	signal=20%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_VENTX	5	0.840953	1.506737	0.10297	0.572489	0.562349	82	tags=20%	list=1%	signal=20%
REACTOME_METABOLISM_OF_ANGIOTENSINOGEN_TO_ANGIOTENS	9	0.772955	1.505346	0.140625	0.572489	0.562349	3306	tags=78%	list=21%	signal=61%
REACTOME_SPHINGOLIPID_METABOLISM	71	0.634426	1.504983	0.063518	0.572489	0.562349	1951	tags=27%	list=12%	signal=24%
REACTOME_OLFACTORY_SIGNALING_PATHWAY	4	-0.86095	-1.50236	0.061876	0.572489	0.562349	2142	tags=75%	list=14%	signal=65%
REACTOME_SURFACTANT_METABOLISM	15	-0.65398	-1.50168	0.121901	0.572489	0.562349	28	tags=13%	list=0%	signal=13%
REACTOME_PROTEIN_METHYLATION	19	-0.64732	-1.50127	0.12527	0.572489	0.562349	3520	tags=63%	list=22%	signal=49%
REACTOME_TETRAHYDROBIOTERIN_BH4_SYNTHESIS_RECYCLING_S	9	0.770653	1.500864	0.140625	0.572489	0.562349	65	tags=11%	list=0%	signal=11%
REACTOME_DSCAM_INTERACTIONS	9	0.769344	1.498315	0.146484	0.572489	0.562349	141	tags=11%	list=1%	signal=11%
WP_WNT_SIGNALING_PATHWAY_AND_PLURIPOTENCY	89	0.615093	1.498075	0.054688	0.572489	0.562349	392	tags=8%	list=2%	signal=8%
REACTOME_SYNAPTIC_ADHESION_LIKE_MOLECULES	20	0.721368	1.497145	0.146893	0.572489	0.562349	2031	tags=50%	list=13%	signal=44%
REACTOME_GAMMA_CARBOXYLATION_TRANSPORT_AND_AMINO_I	5	0.835139	1.496319	0.106931	0.572489	0.562349	2094	tags=80%	list=13%	signal=69%
REACTOME_HS_GAG_BIOSYNTHESIS	28	0.689651	1.492825	0.123478	0.572489	0.562349	3973	tags=68%	list=25%	signal=51%
REACTOME_UCH_PROTEINASES	81	-0.55666	-1.49258	0.132626	0.572489	0.562349	3335	tags=49%	list=21%	signal=39%
REACTOME_RHO_GTPASES_ACTIVATE_CIT	7	-0.75258	-1.49246	0.093812	0.572489	0.562349	3395	tags=71%	list=22%	signal=56%
REACTOME_ORC1_REMOVAL_FROM_CHROMATIN	68	-0.57062	-1.49156	0.120301	0.572489	0.562349	3355	tags=51%	list=21%	signal=41%
REACTOME_PHASE_I_FUNCTIONALIZATION_OF_COMPOUNDS	59	0.644871	1.48985	0.075503	0.572489	0.562349	359	tags=8%	list=2%	signal=8%
REACTOME_MHC_CLASS_II_ANTIGEN_PRESENTATION	121	-0.55421	-1.48901	0.08596	0.572489	0.562349	2389	tags=36%	list=15%	signal=31%
REACTOME_SYNTHESIS_OF_PI	5	0.830826	1.488592	0.108911	0.572489	0.562349	1767	tags=60%	list=11%	signal=53%
REACTOME_ENDOSOMAL_SORTING_COMPLEX_REQUIRED_FOR_TR/	29	-0.60046	-1.48832	0.13615	0.572489	0.562349	1670	tags=48%	list=11%	signal=43%
BIOCARTA_CIRCADIAN_PATHWAY	5	0.830639	1.488257	0.108911	0.572489	0.562349	1042	tags=40%	list=7%	signal=37%
REACTOME_REACTIONS_SPECIFIC_TO_THE_COMPLEX_N_GLYCAN_S	7	0.78459	1.487295	0.125749	0.572489	0.562349	2916	tags=71%	list=19%	signal=58%
WP_WNT_SIGNALING_PATHWAY_WP539	101	0.59796	1.486516	0.047766	0.572489	0.562349	661	tags=12%	list=4%	signal=11%
REACTOME_UTILIZATION_OF_KETONE_BODIES	3	-0.92171	-1.48548	0.058248	0.572489	0.562349	1071	tags=67%	list=7%	signal=62%
BIOCARTA_INSULIN_PATHWAY	22	0.698839	1.483365	0.154412	0.572489	0.562349	1518	tags=27%	list=10%	signal=25%
REACTOME_FCR1_MEDIATED_NF_KB_ACTIVATION	72	-0.56643	-1.48288	0.125964	0.572489	0.562349	3335	tags=50%	list=21%	signal=40%
WP_LUNG_FIBROSIS	42	0.658576	1.481837	0.098976	0.572489	0.562349	1712	tags=24%	list=11%	signal=21%
REACTOME_MOLECULES_ASSOCIATED_WITH_ELASTIC_FIBRES	28	0.684284	1.481208	0.133913	0.572489	0.562349	2101	tags=36%	list=13%	signal=31%
REACTOME_SYNTHESIS_OF_PA	28	-0.60191	-1.48106	0.142857	0.572489	0.562349	48	tags=7%	list=0%	signal=7%
REACTOME_O_LINKED_GLYCOSYLATION	89	0.607492	1.479562	0.060938	0.572489	0.562349	3646	tags=47%	list=23%	signal=36%
REACTOME_TNFR1_INDUCED_PROAPOPTOTIC_SIGNALING	22	0.696988	1.479436	0.15625	0.572489	0.562349	426	tags=18%	list=3%	signal=18%
REACTOME_GABA_B_RECEPTOR_ACTIVATION	39	0.661986	1.478893	0.115318	0.572489	0.562349	200	tags=8%	list=1%	signal=8%
REACTOME_REGULATION_OF_INSULIN_SECRETION	55	0.642136	1.478741	0.087838	0.572489	0.562349	579	tags=15%	list=4%	signal=14%
BIOCARTA_TUBBY_PATHWAY	5	0.824872	1.477923	0.114851	0.572489	0.562349	1141	tags=60%	list=7%	signal=56%
REACTOME_INHIBITION_PROTEIN_INTERACTIONS_AT_SYNAPSES	66	0.632389	1.477004	0.078203	0.572489	0.562349	2031	tags=50%	list=13%	signal=44%
REACTOME_COPI_INDEPENDENT_GOLGI_TO_ER_RETROGRADE_TRA	43	-0.58466	-1.4764	0.130751	0.572489	0.562349	3455	tags=60%	list=22%	signal=47%
BIOCARTA_RACQYCQ_PATHWAY	25	-0.61595	-1.47604	0.142202	0.572489	0.562349	377	tags=20%	list=2%	signal=20%
WP_MITOCHONDRIAL_LONG_CHAIN_FATTY_ACID_BETAOXIDATION	16	-0.63779	-1.47551	0.123967	0.572489	0.562349	2976	tags=62%	list=19%	signal=51%
WP_FACTORS_AND_PATHWAYS_AFFECTING_INSULINLIKE_GROWTH	27	0.685921	1.475148	0.149648	0.572489	0.562349	849	tags=19%	list=5%	signal=18%
REACTOME_PROTEIN_REPAIR	6	-0.78057	-1.47207	0.09407	0.572489	0.562349	2533	tags=67%	list=16%	signal=56%
REACTOME_CLEC7A_DECTIN_1_SIGNALING	90	-0.54572	-1.4718	0.125	0.572489	0.562349	3554	tags=51%	list=23%	signal=40%
WP_EICOSANOID_METABOLISM_VIA_CYTOCHROME_P450_MONOO	4	-0.84343	-1.47179	0.06986	0.572489	0.562349	95	tags=50%	list=1%	signal=50%
REACTOME_FORMATION_OF_THE_BETA_CATENIN_TCF_TRANSACTI	23	0.691206	1.470982	0.153285	0.572489	0.562349	1384	tags=30%	list=9%	signal=28%
REACTOME_G_PROTEIN_ACTIVATION	21	-0.62237	-1.46983	0.135593	0.572489	0.562349	3927	tags=67%	list=25%	signal=50%
REACTOME_CAM_PDE_1_ACTIVATION	6	-0.7789	-1.46892	0.09407	0.572489	0.562349	2019	tags=83%	list=13%	signal=73%
REACTOME_GLYCOGEN_BREAKDOWN_GLYCOGENOLYSIS	13	-0.6632	-1.46868	0.12963	0.572489	0.562349	2200	tags=69%	list=14%	signal=60%
BIOCARTA_CELLCYCLE_PATHWAY	22	-0.62344	-1.4678	0.133188	0.572489	0.562349	234	tags=18%	list=1%	signal=18%
REACTOME_CA_DEPENDENT_EVENTS	27	0.682453	1.467689	0.149648	0.572489	0.562349	645	tags=11%	list=4%	signal=11%
REACTOME_RUNX1_REGULATES_TRANSCRIPTION_OF_GENES_INVO	63	-0.55809	-1.4675	0.126521	0.572489	0.562349	3335	tags=52%	list=21%	signal=41%
WP_MYOMETRIAL_RELAXATION_AND_CONTRACTION_PATHWAYS	134	0.570054	1.466815	0.050305	0.572489	0.562349	200	tags=5%	list=1%	signal=5%
REACTOME_ER_QUALITY_CONTROL_COMPARTMENT_ERQC	4	-0.84052	-1.46672	0.06986	0.572489	0.562349	2489	tags=75%	list=16%	signal=63%
REACTOME_SYNTHESIS_OF_PC	25	0.68173	1.465869	0.15371	0.572489	0.562349	361	tags=8%	list=2%	signal=8%



REACTOME_SYNTHESIS_OF_ACTIVE_UBIQUITIN_ROLES_OF_E1_AND	30	-0.58352	-1.46494	0.143192	0.572489	0.562349	3141	tags=40%	list=20%	signal=32%
REACTOME_PEROXISOMAL_LIPID_METABOLISM	25	-0.6112	-1.46465	0.144495	0.572489	0.562349	3881	tags=60%	list=25%	signal=45%
REACTOME_TRANSMISSION_ACROSS_CHEMICAL_SYNAPSES	192	0.543751	1.463955	0.050074	0.572489	0.562349	1291	tags=14%	list=8%	signal=13%
REACTOME_AKT_PHOSPHORYLATES_TARGETS_IN_THE_NUCLEUS	10	-0.70056	-1.46166	0.125786	0.572489	0.562349	885	tags=30%	list=6%	signal=28%
REACTOME_SYNTHESIS_OF_EPOXY_EET_AND_DIHYDROXYEICOSATR	3	-0.90675	-1.46138	0.054767	0.572489	0.562349	95	tags=67%	list=1%	signal=66%
REACTOME_TNFR2_NON_CANONICAL_NF_KB_PATHWAY	83	-0.54739	-1.46114	0.136612	0.572489	0.562349	3335	tags=45%	list=21%	signal=35%
REACTOME_GOLGI_TO_ER_RETROGRADE_TRANSPORT	121	-0.5434	-1.45998	0.103152	0.572489	0.562349	2950	tags=43%	list=19%	signal=35%
WP_FOCAL_ADHESION	174	0.5475	1.459725	0.048889	0.572489	0.562349	2306	tags=26%	list=15%	signal=23%
REACTOME_SIALIC_ACID_METABOLISM	31	0.662665	1.45657	0.141115	0.572489	0.562349	2252	tags=42%	list=14%	signal=36%
REACTOME_G_ALPHA_S_SIGNALLING_EVENTS	95	0.590397	1.455733	0.070093	0.572489	0.562349	137	tags=4%	list=1%	signal=4%
REACTOME_SHC_RELATED_EVENTS_TRIGGERED_BY_IGF1R	6	0.788093	1.454883	0.136452	0.572489	0.562349	146	tags=17%	list=1%	signal=17%
REACTOME_SYNTHESIS_OF_16_20_HYDROXYEICOSATETRAENOIC_A	3	0.901736	1.454439	0.084479	0.572489	0.562349	180	tags=33%	list=1%	signal=33%
BIOCARTA_IL17_PATHWAY	3	0.901479	1.454023	0.084479	0.572489	0.562349	142	tags=33%	list=1%	signal=33%
BIOCARTA_ERYTH_PATHWAY	8	0.745859	1.453809	0.155689	0.572489	0.562349	874	tags=25%	list=6%	signal=24%
WP_ESTROGEN_METABOLISM	5	0.811294	1.453596	0.120792	0.572489	0.562349	221	tags=20%	list=1%	signal=20%
REACTOME_SYNTHESIS_OF_DIPHTHAMIDE_EEF2	7	-0.73229	-1.45222	0.113772	0.572489	0.562349	3178	tags=71%	list=20%	signal=57%
REACTOME_GLUTAMATE_AND_GLUTAMINE_METABOLISM	12	-0.67249	-1.45097	0.134021	0.572489	0.562349	3909	tags=75%	list=25%	signal=56%
REACTOME_BETA_OXIDATION_OF_PRISTANOYL_COA	7	-0.73102	-1.4497	0.115768	0.572489	0.562349	3543	tags=71%	list=23%	signal=55%
REACTOME_PENTOSE_PHOSPHATE_PATHWAY	13	-0.65432	-1.44902	0.131687	0.572489	0.562349	4449	tags=85%	list=28%	signal=61%
WP_ID_SIGNALING_PATHWAY	42	0.643214	1.447272	0.131399	0.572489	0.562349	245	tags=10%	list=2%	signal=9%
REACTOME_G2_M_DNA_REPLICATION_CHECKPOINT	5	0.807617	1.447008	0.128713	0.572489	0.562349	349	tags=20%	list=2%	signal=20%
REACTOME_LYSINE_CATABOLISM	11	-0.67616	-1.44664	0.13843	0.572489	0.562349	4142	tags=64%	list=26%	signal=47%
REACTOME_INTEGRATION_OF_ENERGY_METABOLISM	69	0.611528	1.443941	0.095868	0.572489	0.562349	579	tags=13%	list=4%	signal=13%
REACTOME_THROMBIN_SIGNALLING_THROUGH_PROTEINASE_ACTI	27	-0.58715	-1.44309	0.147465	0.572489	0.562349	3418	tags=59%	list=22%	signal=46%
REACTOME_RAC1_GTPASE_CYCLE	168	0.542836	1.442275	0.050595	0.572489	0.562349	1624	tags=20%	list=10%	signal=18%
REACTOME_CYP2E1_REACTIONS	3	0.894183	1.442256	0.088409	0.572489	0.562349	1177	tags=67%	list=7%	signal=62%
REACTOME_DEACTIVATION_OF_THE_BETA_CATENIN_TRANSACTIVA	31	0.656034	1.441995	0.15331	0.572489	0.562349	483	tags=16%	list=3%	signal=16%
REACTOME_REGULATION_OF_HSF1_MEDIATED_HEAT_SHOCK_RESF	60	0.621948	1.439594	0.097479	0.572489	0.562349	972	tags=13%	list=6%	signal=13%
REACTOME_SIGNALING_BY_HIPPO	20	-0.61265	-1.43896	0.138004	0.572489	0.562349	1223	tags=35%	list=8%	signal=32%
REACTOME_SIGNALING_BY_ERBB2	41	-0.57011	-1.43879	0.152941	0.572489	0.562349	2057	tags=29%	list=13%	signal=26%
REACTOME_METABOLISM_OF_STEROIDS	80	-0.53916	-1.43813	0.143236	0.572489	0.562349	623	tags=14%	list=4%	signal=13%
BIOCARTA_EXTRINSIC_PATHWAY	5	0.802392	1.437647	0.136634	0.572489	0.562349	2009	tags=80%	list=13%	signal=70%
REACTOME_SYNTHESIS_OF_UDP_N_ACETYL_GLUCOSAMINE	8	-0.71434	-1.43752	0.117764	0.572489	0.562349	3924	tags=75%	list=25%	signal=56%
REACTOME_CYTOCHROME_P450_ARRANGED_BY_SUBSTRATE_TYPE	32	0.651781	1.436594	0.156522	0.572489	0.562349	2642	tags=34%	list=17%	signal=29%
BIOCARTA_PPARG_PATHWAY	7	0.756721	1.434466	0.147705	0.572489	0.562349	1263	tags=43%	list=8%	signal=39%
REACTOME_REGULATION_OF_TP53_ACTIVITY_THROUGH_ASSOCIAT	12	-0.66469	-1.43413	0.148454	0.572489	0.562349	764	tags=25%	list=5%	signal=24%
REACTOME_REGULATION_OF_RAS_BY_GAPS	65	-0.54622	-1.43332	0.138614	0.572489	0.562349	3355	tags=54%	list=21%	signal=43%
REACTOME_PLATELET_ACTIVATION_SIGNALING_AND_AGGREGATIO	220	0.527721	1.432594	0.039706	0.572489	0.562349	364	tags=6%	list=2%	signal=6%
BIOCARTA_VOBEISITY_PATHWAY	5	0.799492	1.43245	0.136634	0.572489	0.562349	229	tags=20%	list=1%	signal=20%
REACTOME_IRAK2_MEDIATED_ACTIVATION_OF_TAK1_COMPLEX	10	-0.68639	-1.43209	0.140461	0.572489	0.562349	814	tags=40%	list=5%	signal=38%
BIOCARTA_BARRESTIN_SRC_PATHWAY	17	-0.62043	-1.43188	0.141372	0.572489	0.562349	3558	tags=53%	list=23%	signal=41%
REACTOME_RND3_GTPASE_CYCLE	38	0.643917	1.430576	0.155867	0.572489	0.562349	2565	tags=42%	list=16%	signal=35%
REACTOME_REGULATION_OF_INNATE_IMMUNE_RESPONSES_TO_C	12	-0.6652	-1.42946	0.148454	0.572489	0.562349	878	tags=33%	list=6%	signal=31%
REACTOME_GLUCAGON_TYPE_LIGAND_RECEPTORS	25	-0.59638	-1.42913	0.151376	0.572489	0.562349	3949	tags=60%	list=25%	signal=45%
WP_PEROXIREDOXIN_2_INDUCED_OVARIAN_FAILURE	6	-0.75679	-1.42723	0.110429	0.572489	0.562349	1093	tags=33%	list=7%	signal=31%
REACTOME_CYTOPROTECTION_BY_HMOX1	46	-0.55326	-1.42644	0.14455	0.572489	0.562349	1426	tags=30%	list=9%	signal=28%
REACTOME_NR1H2_NR1H3_REGULATE_GENE_EXPRESSION_TO_COI	6	0.77151	1.42427	0.138402	0.572489	0.562349	1183	tags=33%	list=8%	signal=31%
REACTOME_PKMTS_METHYLATE_HISTONE_LYSINES	48	0.625467	1.421952	0.127367	0.572489	0.562349	281	tags=6%	list=2%	signal=6%
REACTOME_GLYCEROPHOSPHOLIPID_BIOSYNTHESIS	101	0.571566	1.4209	0.077042	0.572489	0.562349	361	tags=5%	list=2%	signal=5%
REACTOME_TCF_DEPENDENT_SIGNALING_IN_RESPONSE_TO_WNT	144	0.548808	1.417212	0.067692	0.572489	0.562349	582	tags=8%	list=4%	signal=8%
REACTOME_TRIGLYCERIDE_CATABOLISM	4	-0.81151	-1.41609	0.101796	0.572489	0.562349	2722	tags=75%	list=17%	signal=62%
REACTOME_REGULATION_OF_PYRUVATE_DEHYDROGENASE_PDH_C	15	-0.6156	-1.41356	0.146694	0.572489	0.562349	1638	tags=47%	list=10%	signal=42%
WP_TYROBP_CAUSAL_NETWORK_IN_MICROGLIA	52	0.611202	1.411077	0.141414	0.572489	0.562349	284	tags=8%	list=2%	signal=8%
REACTOME_G_ALPHA_Q_SIGNALLING_EVENTS	147	0.543093	1.408211	0.070444	0.572489	0.562349	462	tags=5%	list=3%	signal=5%
REACTOME_L1CAM_INTERACTIONS	63	-0.53521	-1.40736	0.143552	0.572489	0.562349	3161	tags=52%	list=20%	signal=42%
REACTOME_HYPUSINE_SYNTHESIS_FROM_EIF5A_LYSINE	5	-0.76743	-1.40654	0.108652	0.572489	0.562349	1423	tags=60%	list=9%	signal=55%
REACTOME_MITOCHONDRIAL_PROTEIN_IMPORT	7	-0.70879	-1.40561	0.127745	0.572489	0.562349	4361	tags=86%	list=28%	signal=62%
REACTOME_INTERCONVERSION_OF_NUCLEOTIDE_DI_AND_TRIPHO	25	-0.58655	-1.40558	0.15367	0.572489	0.562349	2012	tags=36%	list=13%	signal=31%
REACTOME_ASSEMBLY_AND_CELL_SURFACE_PRESENTATION_OF_N	5	0.784433	1.40547	0.142574	0.572489	0.562349	3359	tags=80%	list=21%	signal=63%
REACTOME_SIGNALING_BY_RETINOIC_ACID	31	-0.55876	-1.40541	0.156542	0.572489	0.562349	1638	tags=39%	list=10%	signal=35%
REACTOME_TRANSLLOCATION_OF_ZAP_70_TO_IMMUNOLOGICAL_S	8	-0.69823	-1.40509	0.129741	0.572489	0.562349	3604	tags=62%	list=23%	signal=48%
REACTOME_HEMOSTASIS	429	0.483353	1.404219	0.035679	0.572489	0.562349	391	tags=5%	list=2%	signal=5%
REACTOME_INSERTION_OF_TAIL_ANCHORED_PROTEINS_INTO_THE	14	-0.62086	-1.40294	0.156823	0.572489	0.562349	2788	tags=50%	list=18%	signal=41%
WP_MICRORNAS_IN_CARDIOMYOCYTE_HYPERTROPHY	78	0.583978	1.398608	0.104167	0.572489	0.562349	1021	tags=15%	list=7%	signal=14%
REACTOME_RESPONSE_TO_ELEVATED_PLATELET_CYTOSOLIC_CA2	104	0.55911	1.398592	0.090769	0.572489	0.562349	317	tags=8%	list=2%	signal=8%
REACTOME_SIGNALING_BY_PDGF	51	0.605016	1.391326	0.146712	0.572489	0.562349	2694	tags=33%	list=17%	signal=28%
REACTOME_RAC3_GTPASE_CYCLE	88	0.571631	1.390761	0.105181	0.572489	0.562349	1665	tags=20%	list=11%	signal=18%
WP_MIR193A_AND_MVP_IN_COLON_CANCER_METASTASIS	6	-0.73736	-1.39059	0.139059	0.572489	0.562349	234	tags=33%	list=1%	signal=33%
REACTOME_MISCELLANEOUS_SUBSTRATES	4	0.807725	1.385465	0.133466	0.572489	0.562349	2642	tags=75%	list=17%	signal=62%
REACTOME_CREB1_PHOSPHORYLATION_THROUGH_NMDA_RECEPT	5	0.770705	1.380872	0.154455	0.572489	0.562349	1291	tags=40%	list=8%	signal=37%
BIOCARTA_FIBRINOLYSIS_PATHWAY	5	0.769497	1.378708	0.154455	0.572489	0.562349	2242	tags=60%	list=14%	signal=51%
REACTOME_DNA_REPLICATION_PRE_INITIATION	96	-0.51375	-1.37108	0.156425	0.572489	0.562349	3554	tags=45%	list=23%	signal=35%
REACTOME_PASSIVE_TRANSPORT_BY_AQUAPORINS	5	-0.74776	-1.37048	0.146881	0.572489	0.562349	2536	tags=40%	list=16%	signal=34%
REACTOME_FRUCTOSE_CATABOLISM	5	-0.74675	-1.36863	0.152918	0.572489	0.562349	1177	tags=60%	list=7%	signal=56%
REACTOME_EUKARYOTIC_TRANSLATION_ELONGATION	5	-0.74624	-1.3677	0.152918	0.572489	0.562349	3990	tags=100%	list=25%	signal=75%
REACTOME_SEPARATION_OF_SISTER_CHROMATIDS	175	-0.5073	-1.3648	0.116564	0.572489	0.562349	3348	tags=43%	list=21%	signal=34%
REACTOME_C_TYPE_LECTIN_RECEPTORS_CLRS	105	-0.50869	-1.36328	0.148688	0.572489	0.562349	3554	tags=49%	list=23%	signal=38%
REACTOME_TRANSPORT_OF_SMALL_MOLECULES	541	0.460767	1.363041	0.032763	0.572489	0.562349	3031	tags=32%	list=19%	signal=26%
REACTOME_GAMMA_CARBOXYLATION_OF_PROTEIN_PRECURSORS	3	0.84344	1.360411	0.125737	0.572489	0.562349	1477	tags=67%	list=9%	signal=60%
REACTOME_STIMULI_SENSING_CHANNELS	74	0.569609	1.357336	0.136143	0.572489	0.562349	3082	tags=39%	list=20%	signal=32%
REACTOME_CARDIAC_CONDUCTION	88	0.548947	1.335572	0.147567	0.572489	0.562349	1771	tags=16%	list=11%	signal=14%
REACTOME_INCRETIN_SYNTHESIS_SECRETION_AND_INACTIVATION	4	-0.76536	-1.33556	0.149701	0.572489	0.562349	112	tags=50%	list=1%	signal=50%
REACTOME_ION_CHANNEL_TRANSPORT	138	0.516714	1.335201							



REACTOME_MEMBRANE_TRAFFICKING	524	-0.43119	-1.30263	0.123552	0.572489	0.562349	3130	tags=34%	list=20%	signal=28%
REACTOME_MITOTIC_G2_G2_M_PHASES	177	-0.47955	-1.3009	0.151515	0.572489	0.562349	3355	tags=41%	list=21%	signal=33%
REACTOME_CLASS_A_1_RHODOPSIN_LIKE_RECEPTORS	180	0.478781	1.274554	0.141369	0.572489	0.562349	1410	tags=15%	list=9%	signal=14%
REACTOME_GPCR_LIGAND_BINDING	232	0.462558	1.268067	0.138081	0.572489	0.562349	776	tags=8%	list=5%	signal=7%
REACTOME_SIGNALING_BY_RECEPTOR_TYROSINE_KINASES	373	0.439322	1.261539	0.11236	0.572489	0.562349	1603	tags=14%	list=10%	signal=13%
REACTOME_CHROMATIN_MODIFYING_ENZYMES	153	0.480535	1.255916	0.152568	0.572489	0.562349	1038	tags=9%	list=7%	signal=9%
REACTOME_SIGNALING_BY_WNT	220	0.462052	1.254324	0.144118	0.572489	0.562349	483	tags=6%	list=3%	signal=6%
REACTOME_SIGNALING_BY_GPCR	431	0.431352	1.252619	0.114325	0.572489	0.562349	784	tags=7%	list=5%	signal=7%
REACTOME_NEUREXINS_AND_NEUROLIGINS	31	0.652412	1.434034	0.158537	0.576213	0.566006	2767	tags=58%	list=18%	signal=48%
REACTOME_MET_PROMOTES_CELL_MOTILITY	31	0.652264	1.433707	0.158537	0.576213	0.566006	2195	tags=26%	list=14%	signal=22%
BIOCARTA_PITX2_PATHWAY	13	0.743654	1.504716	0.162791	0.57927	0.56901	1384	tags=38%	list=9%	signal=35%
BIOCARTA_CD40_PATHWAY	13	0.743409	1.503491	0.166667	0.57927	0.56901	600	tags=23%	list=4%	signal=22%
REACTOME_SIGNALING_BY_ACTIVIN	13	0.734559	1.486312	0.176357	0.57927	0.56901	2918	tags=54%	list=19%	signal=44%
REACTOME_NITRIC_OXIDE_STIMULATES_GUANYLATE_CYCLASE	13	0.732844	1.482844	0.176357	0.57927	0.56901	1076	tags=23%	list=7%	signal=22%
BIOCARTA_ARF_PATHWAY	15	0.725782	1.482033	0.175676	0.57927	0.56901	96	tags=7%	list=1%	signal=7%
REACTOME_REPRESSION_OF_WNT_TARGET_GENES	10	0.754826	1.479971	0.161905	0.57927	0.56901	82	tags=10%	list=1%	signal=10%
WP_SELENIUM_MICRONUTRIENT_NETWORK	18	0.721673	1.479812	0.162571	0.57927	0.56901	285	tags=11%	list=2%	signal=11%
REACTOME_CASPASE_MEDIATED_CLEAVAGE_OF_CYTOSKELETAL_PF	12	0.733766	1.478723	0.172147	0.57927	0.56901	97	tags=8%	list=1%	signal=8%
REACTOME_NUCLEOTIDE_LIKE_PURINERGIC_RECEPTORS	13	0.729289	1.475651	0.180233	0.57927	0.56901	93	tags=8%	list=1%	signal=8%
REACTOME_REGULATION_OF_TLR_BY_ENDOGENOUS_LIGAND	14	0.719572	1.46581	0.176125	0.57927	0.56901	105	tags=7%	list=1%	signal=7%
REACTOME_NR1H2_AND_NR1H3_MEDIATED_SIGNALING	12	0.726605	1.46429	0.179884	0.57927	0.56901	1183	tags=33%	list=8%	signal=31%
REACTOME_GPER1_SIGNALING	26	0.667918	1.441127	0.163732	0.57927	0.56901	101	tags=8%	list=1%	signal=8%
REACTOME_HS_GAG_DEGRADATION	20	0.691787	1.435753	0.184557	0.57927	0.56901	4566	tags=80%	list=29%	signal=57%
BIOCARTA_HDAC_PATHWAY	21	0.687586	1.432977	0.184906	0.57927	0.56901	1021	tags=29%	list=7%	signal=27%
WP_SREBF_AND_MIR33_IN_CHOLESTEROL_AND_LIPID_HOMEOSTA	11	0.723181	1.431692	0.183398	0.57927	0.56901	1736	tags=36%	list=11%	signal=32%
REACTOME_NON_INTEGRIN_MEMBRANE_ECM_INTERACTIONS	28	0.661159	1.431151	0.170435	0.57927	0.56901	364	tags=11%	list=2%	signal=10%
BIOCARTA_CELL2CELL_PATHWAY	9	0.73389	1.429266	0.177734	0.57927	0.56901	188	tags=11%	list=1%	signal=11%
REACTOME_PLATELET_CALCIIUM_HOMEOSTASIS	26	0.656055	1.41553	0.176056	0.57927	0.56901	55	tags=4%	list=0%	signal=4%
REACTOME_DNA_DAMAGE_RECOGNITION_IN_GG_NER	38	-0.55653	-1.41207	0.160093	0.57927	0.56901	3355	tags=45%	list=21%	signal=39%
REACTOME_TANDEM_PORE_DOMAIN_POTASSIUM_CHANNELS	8	0.718942	1.401343	0.183633	0.57927	0.56901	3160	tags=62%	list=20%	signal=50%
REACTOME_SODIUM_PROTON_EXCHANGERS	9	0.719164	1.400586	0.181641	0.57927	0.56901	2896	tags=67%	list=18%	signal=54%
REACTOME_SENESCENCE_ASSOCIATED_SECRETORY_PHENOTYPE_SA	40	-0.55388	-1.39997	0.168618	0.57927	0.56901	676	tags=38%	list=4%	signal=36%
REACTOME_G_ALPHA_Z_SIGNALING_EVENTS	31	0.636874	1.39988	0.181185	0.57927	0.56901	645	tags=16%	list=4%	signal=15%
REACTOME_NUCLEOTIDE_CATABOLISM	31	0.63592	1.397783	0.181185	0.57927	0.56901	375	tags=6%	list=2%	signal=6%
REACTOME_LYSOSOME_VESICLE_BIOGENESIS	34	-0.55044	-1.37987	0.176744	0.57927	0.56901	3431	tags=44%	list=22%	signal=35%
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_CELL_CYCLE_GE	35	-0.55055	-1.37935	0.178241	0.57927	0.56901	523	tags=9%	list=3%	signal=8%
WP_FATTY_ACID_BIOSYNTHESIS	22	-0.58585	-1.37931	0.170306	0.57927	0.56901	2227	tags=50%	list=14%	signal=43%
REACTOME_CYCLIN_D_ASSOCIATED_EVENTS_IN_G1	42	-0.54642	-1.37755	0.175481	0.57927	0.56901	2489	tags=31%	list=16%	signal=26%
REACTOME_ADG_SIGNALING_THROUGH_P2Y_PURINOCEPTOR_1	22	-0.58355	-1.37389	0.170306	0.57927	0.56901	3418	tags=59%	list=22%	signal=46%
REACTOME_RECEPTOR_MEDIATED_MITOPHAGY	11	-0.64125	-1.37194	0.163223	0.57927	0.56901	3161	tags=64%	list=20%	signal=51%
BIOCARTA_G1_PATHWAY	25	-0.57058	-1.3673	0.167431	0.57927	0.56901	234	tags=20%	list=1%	signal=20%
REACTOME_ION_TRANSPORT_BY_P_TYPE_ATPASES	48	0.601297	1.367002	0.165232	0.57927	0.56901	3011	tags=40%	list=19%	signal=32%
REACTOME_INHIBITION_OF_THE_PROTEOLYTIC_ACTIVITY_OF_APC_	21	-0.57862	-1.36652	0.182203	0.57927	0.56901	3348	tags=43%	list=21%	signal=34%
BIOCARTA_MPR_PATHWAY	18	-0.59108	-1.36507	0.175476	0.57927	0.56901	2970	tags=44%	list=19%	signal=36%
REACTOME_COSTIMULATION_BY_THE_CD28_FAMILY	52	-0.53502	-1.36304	0.164216	0.57927	0.56901	2866	tags=37%	list=18%	signal=30%
REACTOME_SENSORY_PERCEPTION_OF_TASTE	5	0.760717	1.362978	0.162376	0.57927	0.56901	55	tags=20%	list=0%	signal=20%
REACTOME_CD28_DEPENDENT_PI3K_AKT_SIGNALING	21	-0.57679	-1.36219	0.184322	0.57927	0.56901	1769	tags=19%	list=11%	signal=17%
REACTOME_CHONDROITIN_SULFATE_DERMATAN_SULFATE_METAB	47	0.601612	1.36186	0.172414	0.57927	0.56901	4566	tags=57%	list=29%	signal=41%
REACTOME_REGULATION_OF_APC_C_ACTIVATORS_BETWEEN_G1_S	35	-0.54331	-1.36122	0.185185	0.57927	0.56901	3513	tags=40%	list=22%	signal=31%
BIOCARTA_G2_PATHWAY	22	-0.57741	-1.35943	0.179039	0.57927	0.56901	2249	tags=27%	list=14%	signal=23%
REACTOME_CD28_CO_STIMULATION	32	-0.54132	-1.35845	0.168618	0.57927	0.56901	1769	tags=22%	list=11%	signal=19%
REACTOME_HYALURONAN_BIOSYNTHESIS_AND_EXPORT	5	0.75769	1.357553	0.162376	0.57927	0.56901	1056	tags=40%	list=7%	signal=37%
REACTOME_PLATELET_SENSITIZATION_BY_LDL	16	-0.58604	-1.35579	0.177686	0.57927	0.56901	3800	tags=62%	list=24%	signal=47%
REACTOME_CD28_DEPENDENT_VAV1_PATHWAY	11	-0.63292	-1.35412	0.171488	0.57927	0.56901	2708	tags=36%	list=17%	signal=30%
WP_ENDOCHONDRAL_OSSIFICATION	53	0.587507	1.353256	0.183986	0.57927	0.56901	994	tags=21%	list=6%	signal=20%
REACTOME_N_GLYCAN_TRIMMING_AND_ELONGATION_IN_THE_CI	5	0.754983	1.352704	0.162376	0.57927	0.56901	1176	tags=60%	list=7%	signal=56%
REACTOME_DOWNSTREAM_TCR_SIGNALING	82	-0.50817	-1.35199	0.167568	0.57927	0.56901	3335	tags=49%	list=21%	signal=39%
REACTOME_AMPK_INHIBITS_CHREBP_TRANSCRIPTIONAL_ACTIVATI	5	0.753159	1.349436	0.166337	0.57927	0.56901	2856	tags=40%	list=18%	signal=33%
REACTOME_REGULATION_OF_BACH1_ACTIVITY	11	-0.62799	-1.34357	0.181818	0.57927	0.56901	3355	tags=45%	list=21%	signal=36%
REACTOME_PD_1_SIGNALING	10	-0.64288	-1.34132	0.176101	0.57927	0.56901	2272	tags=70%	list=14%	signal=60%
REACTOME_REGULATION_OF_EXPRESSION_OF_SLITS_AND_ROBOS	7	-0.67568	-1.33995	0.169661	0.57927	0.56901	676	tags=43%	list=4%	signal=41%
REACTOME_SCF_BETA_TRCP_MEDIATED_DEGRADATION_OF_EMI1	9	-0.6504	-1.33754	0.177551	0.57927	0.56901	2489	tags=56%	list=16%	signal=47%
REACTOME_BETA_OXIDATION_OF_VERY_LONG_CHAIN_FATTY_ACID	11	-0.62489	-1.33693	0.183884	0.57927	0.56901	3881	tags=55%	list=25%	signal=41%
REACTOME_TRANSPORT_OF_BILE_SALTS_AND_ORGANIC_ACIDS_MI	58	0.577185	1.336339	0.172819	0.57927	0.56901	2603	tags=29%	list=17%	signal=25%
REACTOME_GLYCOGEN_SYNTHESIS	5	-0.72678	-1.33202	0.181087	0.57927	0.56901	987	tags=60%	list=6%	signal=56%
REACTOME_ACTIVATION_OF_RAC1_DOWNSTREAM_OF_NMDARS	6	-0.70486	-1.3293	0.165644	0.57927	0.56901	3520	tags=50%	list=22%	signal=39%
REACTOME_ANTIGEN_PROCESSING_CROSS_PRESENTATION	74	-0.50309	-1.32763	0.163636	0.57927	0.56901	3335	tags=47%	list=21%	signal=37%
BIOCARTA_PELP1_PATHWAY	5	0.740408	1.32659	0.178218	0.57927	0.56901	1263	tags=40%	list=8%	signal=37%
REACTOME_HEDGEHOG_ON_STATE	78	-0.50178	-1.32555	0.174603	0.57927	0.56901	3355	tags=47%	list=21%	signal=37%
REACTOME_DEGRADATION_OF_AXIN	53	-0.51563	-1.32363	0.180723	0.57927	0.56901	3335	tags=60%	list=21%	signal=48%
REACTOME_PTK6_REGULATES_RTKS_AND_THEIR_EFFECTORS_AKT1	8	-0.65764	-1.32342	0.177645	0.57927	0.56901	2489	tags=50%	list=16%	signal=42%
REACTOME_FRUCTOSE_METABOLISM	6	-0.69932	-1.31885	0.167689	0.57927	0.56901	1177	tags=50%	list=7%	signal=46%
REACTOME_SENSORY_PERCEPTION	67	0.558149	1.312162	0.175497	0.57927	0.56901	179	tags=4%	list=1%	signal=4%
WP_REGULATION_OF_CARDIAC_HYPERTROPHY_BY_MIR208	3	-0.81115	-1.3073	0.160243	0.57927	0.56901	1268	tags=67%	list=8%	signal=61%
REACTOME_CYCLIN_A_CDK2_ASSOCIATED_EVENTS_AT_S_PHASE_EI	71	-0.49821	-1.29868	0.18299	0.57927	0.56901	1879	tags=35%	list=12%	signal=29%
REACTOME_DNA_REPLICATION	123	-0.47935	-1.28626	0.172414	0.57927	0.56901	3554	tags=44%	list=23%	signal=34%
REACTOME_CELLULAR_RESPONSE_TO_HEAT_STRESS	79	0.536826	1.284324	0.176282	0.57927	0.56901	972	tags=13%	list=6%	signal=12%
REACTOME_CELL_CYCLE_CHECKPOINTS	256	-0.44729	-1.27218	0.167192	0.57927	0.56901	3348	tags=33%	list=21%	signal=26%
REACTOME_G2_M_CHECKPOINTS	138	-0.46904	-1.26486	0.178161	0.57927	0.56901	2489	tags=36%	list=16%	signal=31%
REACTOME_MITOTIC_METAPHASE_AND_ANAPHASE	212	-0.45966	-1.26208	0.18125	0.57927	0.56901	3348	tags=40%	list=21%	signal=32%
REACTOME_M_PHASE	337	-0.43022	-1.26178	0.171233	0.57927	0.56901	3210	tags=35%	list=20%	signal=29%
REACTOME_DNA_REPAIR	272	-0.43417	-1.24489	0.169329	0.57927	0.56901	2489	tags=17%	list=16%	signal=14%
REACTOME_MUSCLE_CONTRACTION	139	0.479837	1.240899	0.169207	0.57927	0.56901	1818	tags=17%	list=12%	signal=15%
REACTOME_RHO_GTPASE_CYCLE	410	0.413957	1.198843	0.160714	0.57927	0.56901	1665	tags=16%	list=11%	signal=15%
WP_MONOAMINE_GPCRS	29	0.645227	1.402784	0.185764	0.579988	0.569715	2310	tags=45%	list=15%	signal=38%
WP_PPARG_SIGNALING_PATHWAY	52	-0.51466	-1.31115	0.186275	0.580491	0.570209	2976	tags=37%	list=19%	signal=30%
REACTOME_ERKS_ARE_INACTIVATED	13	-0.60528	-1.34041	0.187243	0.582416	0.5721	3800	tags=77%	list=24%	signal=58%
BIOCARTA_RAC1_PATHWAY	21	0.680622	1.418463	0.188679	0.583387	0.573053	1021	tags=19%	list=7%	signal=18%
REACTOME_PHOSPHORYLATION_OF_THE_APC_C	20	-0.56972	-1.33812	0.18896	0.583387	0.573053	3348	tags=40%	list=21%	signal=32%
REACTOME_CONVERSION_FROM_APC_C_CDC20_TO_APC_C_CDH1_	20	-0.56595	-1.32928	0.18896	0.583387	0.573053	3513	tags=55%	list=22%	signal=43%



REACTOME_TRANSLESION_SYNTHESIS_BY_POLH	18	-0.5745	-1.32679	0.188161	0.583387	0.573053	3984 tags=56%	list=25%	signal=42%
REACTOME_WNT5A_DEPENDENT_INTERNALIZATION_OF_FZD4	14	-0.59515	-1.34484	0.189409	0.58369	0.573351	2283 tags=50%	list=15%	signal=43%
REACTOME_EXTRA_NUCLEAR_ESTROGEN_SIGNALING	60	0.562773	1.302624	0.189916	0.584167	0.57382	146 tags=5%	list=1%	signal=5%
REACTOME_THE_CANONICAL_RETINOID_CYCLE_IN_RODS_TWILIGHT	15	0.705679	1.440983	0.19305	0.585676	0.575302	125 tags=7%	list=1%	signal=7%
REACTOME_TRANSLESION_SYNTHESIS_BY_POLK	16	-0.56994	-1.31856	0.192149	0.585676	0.575302	3984 tags=50%	list=25%	signal=37%
REACTOME_CAMK_IV_MEDIATED_PHOSPHORYLATION_OF_CREB	5	-0.71342	-1.30755	0.191147	0.585676	0.575302	3520 tags=60%	list=22%	signal=47%
REACTOME_OREXIN_AND_NEUROPEPTIDES_FF_AND_QRFP_BIND_T	5	0.725086	1.299137	0.192079	0.585676	0.575302	2823 tags=60%	list=18%	signal=49%
REACTOME_UREA_CYCLE	5	-0.70809	-1.29778	0.193159	0.585676	0.575302	4476 tags=80%	list=29%	signal=57%
REACTOME_ESTROGEN_STIMULATED_SIGNALING_THROUGH_PRKC	5	-0.7045	-1.29119	0.193159	0.585676	0.575302	377 tags=60%	list=2%	signal=59%
REACTOME_TRANSPORT_OF_GAMMA_CARBOXYLATED_PROTEIN_PI	3	0.797019	1.285537	0.192534	0.585676	0.575302	2094 tags=67%	list=13%	signal=58%
REACTOME_MUSCARINIC_ACETYLCHOLINE_RECEPTORS	4	0.746085	1.279735	0.193227	0.585676	0.575302	1141 tags=50%	list=7%	signal=46%
REACTOME_GABA_SYNTHESIS_RELEASE_REUPTAKE_AND_DEGRADA	19	-0.57755	-1.33946	0.194384	0.587041	0.576643	3473 tags=58%	list=22%	signal=45%
REACTOME_S1P_PATHWAY	6	-0.68302	-1.28811	0.194274	0.587041	0.576643	57 tags=33%	list=0%	signal=33%
REACTOME_GLUTATHIONE_CONJUGATION	30	-0.52391	-1.3153	0.194836	0.587336	0.576932	3137 tags=50%	list=20%	signal=40%
REACTOME_EICOSANOID_PATHWAY	18	0.700063	1.435499	0.198488	0.588729	0.578301	359 tags=11%	list=2%	signal=11%
REACTOME_REGULATION_OF_KIT_SIGNALING	13	0.705351	1.427213	0.197674	0.588729	0.578301	284 tags=15%	list=2%	signal=15%
REACTOME_ACYL_CHAIN_REMODELLING_OF_PS	14	0.69998	1.4259	0.195695	0.588729	0.578301	7 tags=7%	list=0%	signal=7%
REACTOME_THROMBOXANE_SIGNALING_THROUGH_TP_RECEPTOF	21	0.673017	1.402614	0.196226	0.588729	0.578301	20 tags=5%	list=0%	signal=5%
REACTOME_G_PROTEIN_MEDIATED_EVENTS	38	0.611217	1.357929	0.197898	0.588729	0.578301	200 tags=5%	list=1%	signal=5%
REACTOME_MTOR_SIGNALING	40	-0.52757	-1.33347	0.196721	0.588729	0.578301	2451 tags=32%	list=16%	signal=27%
REACTOME_INTERLEUKIN_1_FAMILY_SIGNALING	108	-0.47	-1.26712	0.19774	0.588729	0.578301	3355 tags=41%	list=21%	signal=32%
REACTOME_SIGNALING_BY_VEGF	99	0.50938	1.258988	0.198438	0.588729	0.578301	79 tags=3%	list=1%	signal=3%
REACTOME_BIOLOGICAL_OXIDATIONS	126	0.476762	1.218667	0.196621	0.588729	0.578301	359 tags=5%	list=2%	signal=5%
REACTOME_NEPHRIN_FAMILY_INTERACTIONS	8	0.685069	1.335319	0.199601	0.590975	0.580507	2206 tags=38%	list=14%	signal=32%
REACTOME_FOSB_PATHWAY	5	0.716209	1.283232	0.2	0.591103	0.580633	202 tags=20%	list=1%	signal=20%
REACTOME_METABOLISM_OF_COFACTORS	14	0.693122	1.411928	0.203523	0.593726	0.58321	65 tags=7%	list=0%	signal=7%
REACTOME_BARR_MAPK_PATHWAY	14	-0.59121	-1.33593	0.201629	0.593726	0.58321	3558 tags=50%	list=23%	signal=39%
REACTOME_PHASE_0_RAPID_DEPOLARISATION	8	0.682004	1.329343	0.201597	0.593726	0.58321	1631 tags=38%	list=10%	signal=34%
REACTOME_ASPIRIN_ADME	7	0.696171	1.319685	0.203593	0.593726	0.58321	2597 tags=63%	list=17%	signal=36%
REACTOME_ARYL_HYDROCARBON_RECEPTOR_SIGNALING	7	0.695874	1.319122	0.203593	0.593726	0.58321	169 tags=14%	list=1%	signal=14%
REACTOME_COLLAGEN_DEGRADATION	40	-0.51267	-1.29581	0.203747	0.593726	0.58321	29 tags=8%	list=0%	signal=8%
REACTOME_CATION_COUPLED_CHLORIDE_COTRANSPORTERS	5	0.715134	1.281306	0.20198	0.593726	0.58321	3018 tags=80%	list=19%	signal=65%
REACTOME_FC_EPSILON_RECEPTOR_FCERI_SIGNALING	114	-0.46882	-1.25052	0.202899	0.593726	0.58321	3554 tags=45%	list=23%	signal=35%
REACTOME_JOSEPHIN_DOMAIN_DUBS	11	-0.61539	-1.31661	0.204545	0.594769	0.584234	676 tags=36%	list=4%	signal=35%
REACTOME_RNA_POLYMERASE_III_TRANSCRIPTION_INITIATION_FR	26	-0.53103	-1.28533	0.205069	0.594769	0.584234	2109 tags=31%	list=13%	signal=27%
REACTOME_DOPAMINE_RECEPTORS	4	0.737483	1.264981	0.205179	0.594769	0.584234	1559 tags=25%	list=10%	signal=23%
REACTOME_ESTROGEN_DEPENDENT_NUCLEAR_EVENTS_DOWNSTR	9	-0.6324	-1.30052	0.206122	0.595425	0.584878	77 tags=22%	list=0%	signal=22%
WP_OSTEOBLAST_SIGNALING	5	0.70506	1.263257	0.205941	0.595425	0.584878	2578 tags=40%	list=16%	signal=33%
REACTOME_SYNTHESIS_OF_LEUKOTRIENES_LT_AND_EOXINS_EX	12	0.687393	1.385269	0.206963	0.596816	0.586245	180 tags=8%	list=1%	signal=8%
WP_OXIDATIVE_STRESS_RESPONSE	26	-0.53	-1.28283	0.207373	0.596962	0.586388	1529 tags=58%	list=10%	signal=52%
REACTOME_RARRXR_PATHWAY	6	0.706143	1.303597	0.208577	0.598387	0.587788	1594 tags=67%	list=10%	signal=60%
REACTOME_TRANSCRIPTIONAL_REGULATION_OF_GRANULOPOIESIS	6	-0.66732	-1.25851	0.208589	0.598387	0.587788	552 tags=33%	list=4%	signal=32%
REACTOME_NONHOMOLOGOUS_END_JOINING_NHEJ	45	-0.5117	-1.30505	0.209135	0.598918	0.58831	2609 tags=29%	list=17%	signal=24%
REACTOME_COBALAMIN_CBL_METABOLISM	7	-0.64506	-1.27923	0.209581	0.599163	0.58855	572 tags=71%	list=4%	signal=69%
REACTOME_MCM_PATHWAY	13	0.693267	1.402763	0.21124	0.60287	0.592191	142 tags=8%	list=1%	signal=8%
REACTOME_PRESYNAPTIC_DEPOLARIZATION_AND_CALCIIUM_CHAN	11	0.691855	1.369675	0.212355	0.604535	0.593827	2058 tags=45%	list=13%	signal=40%
REACTOME_GLUCAGON_SIGNALING_IN_METABOLIC_REGULATION	5	-0.69227	-1.26878	0.21328	0.604535	0.593827	3701 tags=100%	list=24%	signal=76%
REACTOME_PKA_ACTIVATION_IN_GLUCAGON_SIGNALING	5	-0.69227	-1.26878	0.21328	0.604535	0.593827	3701 tags=100%	list=24%	signal=76%
REACTOME_ESR_MEDIATED_SIGNALING	118	0.480879	1.221061	0.21319	0.604535	0.593827	538 tags=7%	list=3%	signal=7%
REACTOME_CS_DS_DEGRADATION	13	0.689362	1.394861	0.215116	0.605575	0.594849	2910 tags=46%	list=19%	signal=38%
REACTOME_NEGATIVE_REGULATION_OF_FGFR4_SIGNALING	24	-0.53267	-1.27605	0.214765	0.605575	0.594849	2834 tags=50%	list=18%	signal=41%
REACTOME_CHROMOSOME_MAINTENANCE	91	-0.46762	-1.25714	0.21547	0.605575	0.594849	2134 tags=18%	list=14%	signal=15%
REACTOME_POTASSIUM_CHANNELS	86	0.507706	1.237995	0.215289	0.605575	0.594849	2838 tags=30%	list=18%	signal=25%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_TP53	289	-0.41042	-1.19285	0.214058	0.605575	0.594849	2489 tags=26%	list=16%	signal=22%
REACTOME_CCR3_PATHWAY	15	-0.5633	-1.29347	0.216942	0.608684	0.597902	4077 tags=60%	list=26%	signal=44%
REACTOME_CLASS_I_PEROXISOMAL_MEMBRANE_PROTEIN_IMPORT	19	-0.55471	-1.28648	0.218143	0.610459	0.599646	2873 tags=42%	list=18%	signal=34%
REACTOME_NEGATIVE_REGULATION_OF_FGFR2_SIGNALING	29	-0.5076	-1.25816	0.21831	0.610459	0.599646	2834 tags=45%	list=18%	signal=37%
REACTOME_THE_ACTIVATION_OF_ARYLSULFATASES	8	0.672652	1.311116	0.219561	0.610966	0.600144	3901 tags=75%	list=25%	signal=56%
REACTOME_CS_DS_DEGRADATION	55	0.560461	1.290656	0.219595	0.610966	0.600144	221 tags=5%	list=1%	signal=5%
REACTOME_RECYCLING_OF_BILE_ACIDS_AND_SALTS	7	0.676079	1.281598	0.219561	0.610966	0.600144	4545 tags=71%	list=29%	signal=51%
REACTOME_PRC2_METHYLATES_HISTONES_AND_DNA	33	-0.51831	-1.28453	0.220141	0.611461	0.60063	1888 tags=27%	list=12%	signal=24%
WP_DISTAL_CONVOLUTED_TUBULE_1_DCT1_CELL	5	-0.68315	-1.25207	0.221328	0.611817	0.60098	2412 tags=60%	list=15%	signal=51%
REACTOME_CELLULAR_SENESCENCE	89	-0.46488	-1.2514	0.220994	0.611817	0.60098	300 tags=7%	list=2%	signal=7%
REACTOME_SIGNALING_BY_HEDGEHOG	132	0.464784	1.196595	0.221374	0.611817	0.60098	408 tags=5%	list=3%	signal=4%
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_CELL_DEATH_G	15	0.675065	1.37847	0.222008	0.61255	0.6017	135 tags=7%	list=1%	signal=7%
REACTOME_DERMATAN_SULFATE_BIOSYNTHESIS	10	0.689353	1.351599	0.222857	0.612857	0.602002	3561 tags=60%	list=23%	signal=46%
REACTOME_ER_TO_GOLGI_ANTEROGRADE_TRANSPORT	139	-0.44611	-1.20285	0.222543	0.612857	0.602002	3672 tags=45%	list=23%	signal=34%
REACTOME_ASYMMETRIC_LOCALIZATION_OF_PCP_PROTEINS	60	0.550154	1.273415	0.223529	0.61369	0.60282	275 tags=7%	list=2%	signal=7%
REACTOME_FRS_MEDIATED_FGFR4_SIGNALING	14	-0.57306	-1.29491	0.224033	0.613774	0.602902	2767 tags=36%	list=18%	signal=29%
REACTOME_SIGNALING_BY_TGFB_FAMILY_MEMBERS	95	0.496561	1.224362	0.224299	0.613774	0.602902	2649 tags=32%	list=17%	signal=26%
REACTOME_ONCOGENE_INDUCED_SENESCENCE	16	0.678988	1.382915	0.225869	0.617053	0.606123	1020 tags=25%	list=6%	signal=23%
REACTOME_TNFR2_PATHWAY	17	0.677309	1.377621	0.226488	0.617727	0.606785	600 tags=18%	list=4%	signal=17%
REACTOME_SMAD2_SMAD3_SMAD4_HETEROTRIMER_REGULATES_	25	-0.52129	-1.2492	0.227064	0.618285	0.607333	676 tags=12%	list=4%	signal=12%
REACTOME_G1_S_TRANSITION	103	-0.45923	-1.23404	0.22792	0.618587	0.60763	1901 tags=28%	list=12%	signal=25%
REACTOME_PTEN_REGULATION	110	-0.46197	-1.23167	0.227666	0.618587	0.60763	3335 tags=42%	list=21%	signal=33%
REACTOME_GOLGI_CISTERNAE_PERICENTRIOLAR_STACK_REORGAN	10	-0.6007	-1.25332	0.228512	0.619181	0.608213	4398 tags=70%	list=28%	signal=50%
REACTOME_MTA3_PATHWAY	19	0.666126	1.387963	0.230056	0.622349	0.611326	43 tags=5%	list=0%	signal=5%
REACTOME_ADRENOCEPTORS	9	0.676586	1.317665	0.230469	0.622453	0.611428	2310 tags=44%	list=15%	signal=38%
REACTOME_EFFECTS_OF_PIP2_HYDROLYSIS	25	0.625361	1.344663	0.231449	0.622556	0.611529	1558 tags=20%	list=10%	signal=18%
WP_TYPE_II_INTERFERON_SIGNALING_IFNG	25	0.625525	1.344435	0.231449	0.622556	0.611529	1174 tags=20%	list=7%	signal=19%
REACTOME_SEROTONIN_RECEPTORS	10	0.677275	1.327917	0.232381	0.622556	0.611529	2095 tags=60%	list=13%	signal=30%
REACTOME_RUNX1_REGULATES_GENES_INVOLVED_IN_MEGAKARYO	38	-0.49586	-1.25815	0.232019	0.622556	0.611529	2900 tags=37%	list=18%	signal=30%
REACTOME_POLO_LIKE_KINASE_MEDIATED_EVENTS	5	0.696801	1.248459	0.231683	0.622556	0.611529	349 tags=20%	list=2%	signal=20%
REACTOME_FORMATION_OF_TC_NER_PRE_INCISION_COMPLEX	52	-0.48528	-1.2363	0.232843	0.62279	0.611758	3355 tags=37%	list=21%	signal=29%
REACTOME_TRIGLYCERIDE_BIOSYNTHESIS	8	0.656148	1.278947	0.233533	0.623631	0.612584	3440 tags=50%	list=22%	signal=39%
REACTOME_SEMA3A_PLEXIN_REPULSION_SIGNALING_BY_INHIBITIN	9	0.673498	1.311652	0.234375	0.624875	0.613806	2254 tags=67%	list=14%	signal=57%
REACTOME_SYNTHESIS_OF_PIP3_AT_THE_EARLY_ENDOSOME_MEN	15	0.665265	1.358458	0.235521	0.626487	0.61539	2011 tags=33%	list=13%	signal=29%
REACTOME_SIGNAL_AMPLIFICATION	29	0.614517	1.336018	0.236111	0.626487	0.61539	20 tags=3%	list=0%	signal=3%
WP_MIR127_IN_MESENODERM_DIFFERENTIATION	6	0.67311	1.242615	0.235867	0.626487	0.61539	3885 tags=67%	list=25%	signal=50%
REACTOME_ACTIVATION_OF_BAD_AND_TRANSLATION_TO_MITC	12	-0.58835	-1.26943	0.237113	0.627142	0.616034	3753 tags=58%	list=24%	signal=44%



REACTOME_GLUCOSE_METABOLISM	70	-0.46428	-1.21315	0.236776	0.627142	0.616034	2491 tags=34%	list=16%	signal=29%
REACTOME_PYROPTOSIS	16	-0.53277	-1.23256	0.237603	0.627439	0.616325	1445 tags=62%	list=9%	signal=57%
REACTOME_MITOCHONDRIAL_BIOGENESIS	12	-0.58811	-1.2689	0.239175	0.629279	0.618133	1529 tags=50%	list=10%	signal=45%
REACTOME_THYROXINE_BIOSYNTHESIS	5	-0.67156	-1.23082	0.239437	0.629279	0.618133	4428 tags=60%	list=28%	signal=43%
REACTOME_GLYCOLYSIS	55	-0.47222	-1.21835	0.239024	0.629279	0.618133	1640 tags=27%	list=10%	signal=25%
BIOCARTA_HCMV_PATHWAY	17	0.667593	1.357858	0.241843	0.631605	0.620417	1291 tags=24%	list=8%	signal=22%
REACTOME_REGULATION_OF_TP53_ACTIVITY_THROUGH_ACETYLA	29	-0.49523	-1.2275	0.241784	0.631605	0.620417	190 tags=14%	list=1%	signal=14%
REACTOME_SPRY_REGULATION_OF_FGF_SIGNALING	16	-0.52923	-1.22435	0.241736	0.631605	0.620417	2834 tags=56%	list=18%	signal=46%
REACTOME_BETA_CATENIN_PHOSPHORYLATION_CASCADE	17	-0.52947	-1.22196	0.241164	0.631605	0.620417	4073 tags=59%	list=26%	signal=44%
REACTOME_A_TETRASACCHARIDE_LINKER_SEQUENCE_IS_REQUIREI	24	0.63234	1.352477	0.243243	0.631754	0.620564	4566 tags=62%	list=29%	signal=44%
REACTOME_CA2_PATHWAY	42	0.577855	1.300209	0.242321	0.631754	0.620564	82 tags=5%	list=1%	signal=5%
REACTOME_BIOSYNTHESIS_OF_SPECIALIZED_PRORESOLVING_MEDI	11	-0.5837	-1.24881	0.243802	0.631754	0.620564	1552 tags=27%	list=10%	signal=25%
REACTOME_ZINC_INFLUX_INTO_CELLS_BY_THE_SLC39_GENE_FAMI	8	0.640488	1.248423	0.243513	0.631754	0.620564	4982 tags=75%	list=32%	signal=51%
REACTOME_RUNX3_REGULATES_P14_ARF	5	0.690542	1.237244	0.243564	0.631754	0.620564	392 tags=40%	list=2%	signal=39%
REACTOME_BETA_CATENIN_INDEPENDENT_WNT_SIGNALING	119	0.463845	1.180079	0.24424	0.631903	0.620711	275 tags=5%	list=2%	signal=5%
REACTOME_SIGNALING_BY_NOTCH1	18	0.65725	1.34771	0.247637	0.633715	0.62249	392 tags=17%	list=2%	signal=16%
REACTOME_CHONDROITIN_SULFATE_BIOSYNTHESIS	18	0.655005	1.343106	0.251418	0.633715	0.62249	3195 tags=50%	list=20%	signal=40%
REACTOME_PARACETAMOL_ADME	16	0.657869	1.339902	0.252896	0.633715	0.62249	221 tags=12%	list=1%	signal=12%
REACTOME_ENOS_ACTIVATION	13	0.650544	1.316317	0.246124	0.633715	0.62249	65 tags=8%	list=0%	signal=8%
REACTOME_RIPK1_MEDIATED_REGULATED_NECROSIS	30	0.600233	1.314707	0.251736	0.633715	0.62249	37 tags=3%	list=0%	signal=3%
REACTOME_BLOOD_GROUP_SYSTEMS_BIOSYNTHESIS	12	0.642007	1.293806	0.251451	0.633715	0.62249	3013 tags=58%	list=19%	signal=47%
REACTOME_SYNTHESIS_SECRETION_AND_DEACYLATION_OF_GHREL	9	0.661989	1.289238	0.248047	0.633715	0.62249	2170 tags=44%	list=14%	signal=38%
REACTOME_ERYTHROPOIETIN_ACTIVATES_RAS	9	0.657358	1.280219	0.25	0.633715	0.62249	2572 tags=44%	list=16%	signal=37%
REACTOME_ZINC_TRANSPORTERS	10	0.65117	1.276735	0.253333	0.633715	0.62249	4982 tags=80%	list=32%	signal=55%
BIOCARTA_PCAF_PATHWAY	9	0.645919	1.257942	0.251953	0.633715	0.62249	1955 tags=44%	list=12%	signal=39%
REACTOME_CARNITINE_METABOLISM	13	-0.56197	-1.24452	0.253086	0.633715	0.62249	174 tags=23%	list=1%	signal=23%
REACTOME_RECYCLING_OF_EIF2_GDP	8	-0.61506	-1.23773	0.251497	0.633715	0.62249	4879 tags=88%	list=31%	signal=60%
WP_NONHOMOLOGOUS_END_JOINING	7	-0.6221	-1.2337	0.251497	0.633715	0.62249	1414 tags=71%	list=9%	signal=65%
BIOCARTA_TERT_PATHWAY	6	0.667994	1.23317	0.245614	0.633715	0.62249	2962 tags=50%	list=19%	signal=41%
BIOCARTA_ARAP_PATHWAY	11	-0.57565	-1.23159	0.25	0.633715	0.62249	3218 tags=55%	list=20%	signal=43%
REACTOME_TRANSPORT_OF_RCBL_WITHIN_THE_BODY	6	0.666539	1.230485	0.247563	0.633715	0.62249	5241 tags=100%	list=33%	signal=67%
REACTOME_FORMATION_OF_THE_EARLY_ELONGATION_COMPLEX	32	-0.48819	-1.22513	0.248244	0.633715	0.62249	3980 tags=41%	list=25%	signal=30%
REACTOME_EPH_EPHRIN_SIGNALING	64	0.52387	1.220137	0.252508	0.633715	0.62249	1829 tags=28%	list=12%	signal=25%
REACTOME_N_GLYCAN_TRIMMING_IN_THE_ER_AND_CALNEXIN_C/	15	-0.53065	-1.21849	0.252066	0.633715	0.62249	2489 tags=47%	list=16%	signal=39%
WP_FATTY_ACID_OXIDATION	10	-0.58057	-1.21131	0.247379	0.633715	0.62249	2777 tags=70%	list=18%	signal=58%
REACTOME_APOPTOSIS	94	0.488789	1.202085	0.246106	0.633715	0.62249	97 tags=3%	list=1%	signal=3%
REACTOME_S_PHASE	143	-0.43045	-1.156	0.252874	0.633715	0.62249	3404 tags=39%	list=22%	signal=31%
BIOCARTA_41BB_PATHWAY	14	0.641347	1.306462	0.254403	0.633883	0.622655	1955 tags=21%	list=12%	signal=19%
REACTOME_TCR_SIGNALING	99	-0.44801	-1.20873	0.254144	0.633883	0.622655	3335 tags=41%	list=21%	signal=33%
WP_PURINE_METABOLISM	150	0.441799	1.155	0.254545	0.633883	0.622655	375 tags=3%	list=2%	signal=3%
REACTOME_WNT5A_DEPENDENT_INTERNALIZATION_OF_FZD2_FZD	12	0.634745	1.279171	0.255319	0.634858	0.623613	61 tags=8%	list=0%	signal=8%
REACTOME_LAMININ_INTERACTIONS	11	0.647726	1.282312	0.256757	0.636432	0.625159	4903 tags=82%	list=31%	signal=56%
REACTOME_HEDGEHOG_LIGAND_BIOGENESIS	60	0.534967	1.238263	0.257143	0.636432	0.625159	348 tags=5%	list=2%	signal=5%
REACTOME_HSF1_ACTIVATION	8	-0.61083	-1.22922	0.257485	0.636432	0.625159	4120 tags=75%	list=26%	signal=55%
REACTOME_MET_INTERACTS_WITH_TNS_PROTEINS	5	0.676819	1.212657	0.257426	0.636432	0.625159	1913 tags=40%	list=12%	signal=35%
REACTOME_MITOCHONDRIAL_CALCIIION_TRANSPORT	16	-0.51341	-1.18776	0.258264	0.636465	0.625191	1661 tags=38%	list=11%	signal=34%
REACTOME_ORGANELLE_BIOGENESIS_AND_MAINTENANCE	185	-0.41742	-1.13918	0.258258	0.636465	0.625191	3096 tags=34%	list=20%	signal=28%
REACTOME_RHO_GTPASES_ACTIVATE_WASPS_AND_WAVES	32	-0.4816	-1.20859	0.259953	0.638101	0.626799	2844 tags=56%	list=18%	signal=46%
REACTOME_INTRA_GOLGI_TRAFFIC	34	-0.48005	-1.20342	0.260465	0.638101	0.626799	3119 tags=38%	list=20%	signal=31%
REACTOME_RECRUITMENT_OF_NUMA_TO_MITOTIC_CENTROSOME	84	-0.44473	-1.18081	0.260388	0.638101	0.626799	3676 tags=44%	list=23%	signal=34%
REACTOME_MACROAUTOPHAGY	112	-0.43954	-1.17177	0.260116	0.638101	0.626799	2907 tags=41%	list=19%	signal=34%
REACTOME_MISCCELLANEOUS_TRANSPORT_AND_BINDING_EVENTS	19	0.636095	1.32539	0.269017	0.638155	0.626851	3406 tags=58%	list=22%	signal=45%
REACTOME_NCAME1_INTERACTIONS	16	0.643619	1.310877	0.26834	0.638155	0.626851	2694 tags=38%	list=17%	signal=31%
REACTOME_REGULATION_OF_LIPID_METABOLISM_BY_PPARALPHA	16	0.643437	1.310506	0.27027	0.638155	0.626851	3196 tags=56%	list=20%	signal=45%
WP_NUCLEAR_RECEPTORS	31	0.589149	1.294979	0.261324	0.638155	0.626851	1920 tags=23%	list=12%	signal=20%
BIOCARTA_STATHMIN_PATHWAY	14	0.618895	1.260723	0.268102	0.638155	0.626851	859 tags=14%	list=5%	signal=14%
REACTOME_SODIUM_CALCIIUM_EXCHANGERS	12	0.624681	1.258889	0.26499	0.638155	0.626851	152 tags=8%	list=1%	signal=8%
REACTOME_ERYTHROPOIETIN_ACTIVATES_PHOSPHOINOSITIDE_3_K	11	0.635095	1.257308	0.266409	0.638155	0.626851	4464 tags=55%	list=28%	signal=39%
WP_EXERCISEINDUCED_CIRCADIAN_REGULATION	45	0.556655	1.249835	0.264505	0.638155	0.626851	787 tags=18%	list=5%	signal=17%
REACTOME_ACTIVATED_NOTCH1_TRANSMITS_SIGNAL_TO_THE_NU	10	0.631678	1.238516	0.266667	0.638155	0.626851	124 tags=10%	list=1%	signal=10%
REACTOME_SYNTHESIS_OF_BILE_ACIDS_AND_BILE_SALTS_VIA_27_I	9	0.63492	1.23652	0.261719	0.638155	0.626851	4731 tags=67%	list=30%	signal=47%
BIOCARTA_PRION_PATHWAY	10	0.629285	1.233824	0.270476	0.638155	0.626851	851 tags=20%	list=5%	signal=19%
BIOCARTA_IL4_PATHWAY	10	0.627378	1.230086	0.270476	0.638155	0.626851	4119 tags=50%	list=26%	signal=37%
REACTOME_DOWNREGULATION_OF_ERBB4_SIGNALING	9	-0.59084	-1.21505	0.267347	0.638155	0.626851	2526 tags=56%	list=16%	signal=47%
REACTOME_MITOCHONDRIAL_UNCOUPLING	5	-0.66124	-1.21191	0.265594	0.638155	0.626851	32 tags=40%	list=0%	signal=40%
REACTOME_SYNTHESIS_OF_LIPOXINS_LX	5	0.671645	1.203386	0.269307	0.638155	0.626851	4600 tags=60%	list=29%	signal=42%
REACTOME_FLT3_SIGNALING	29	-0.48536	-1.20305	0.265258	0.638155	0.626851	676 tags=14%	list=4%	signal=13%
BIOCARTA_IFNA_PATHWAY	7	0.634412	1.202612	0.265469	0.638155	0.626851	3398 tags=71%	list=22%	signal=56%
REACTOME_NUCLEAR_ENVELOPE_NE_REASSEMBLY	60	-0.46075	-1.19978	0.262899	0.638155	0.626851	2083 tags=35%	list=13%	signal=30%
REACTOME_ESTROGEN_DEPENDENT_GENE_EXPRESSION	57	-0.46663	-1.19926	0.261084	0.638155	0.626851	1888 tags=35%	list=12%	signal=31%
REACTOME_ACTIVATION_OF_BH3_ONLY_PROTEINS	18	-0.51914	-1.19893	0.266385	0.638155	0.626851	4136 tags=61%	list=26%	signal=45%
WP_ERBB_SIGNALING_PATHWAY	41	-0.4731	-1.19397	0.263529	0.638155	0.626851	377 tags=17%	list=2%	signal=17%
REACTOME_RECOGNITION_OF_DNA_DAMAGE_BY_PCNA_CONTAINI	29	-0.4809	-1.19198	0.269953	0.638155	0.626851	4509 tags=45%	list=29%	signal=32%
REACTOME_PCP_CE_PATHWAY	84	0.48768	1.187585	0.266771	0.638155	0.626851	275 tags=6%	list=2%	signal=6%
REACTOME_ENERGY_DEPENDENT_REGULATION_OF_MTOR_BY_LKB	28	-0.48112	-1.18384	0.262295	0.638155	0.626851	2418 tags=29%	list=15%	signal=24%
REACTOME_RNA_POLYMERASE_III_TRANSCRIPTION	34	-0.47139	-1.18171	0.267442	0.638155	0.626851	2109 tags=26%	list=13%	signal=23%
REACTOME_ANTIEN_PROCESSING_UBIQUITINATION_PROTEASOM	281	-0.37786	-1.09426	0.266026	0.638155	0.626851	3367 tags=33%	list=21%	signal=26%
REACTOME_IONOTROPIC_ACTIVITY_OF_KAINATE_RECEPTORS	12	0.622194	1.253877	0.272727	0.642553	0.631172	1533 tags=33%	list=10%	signal=30%
REACTOME_THE_PHOTOTRANSDUCTION_CASCADE	21	-0.51926	-1.22633	0.273305	0.643002	0.631613	2273 tags=52%	list=14%	signal=45%
WP_PRIMARY_FOCAL_SEGMENTAL_GLOMERULOSCLEROSIS_FSGS	67	0.514842	1.210349	0.274834	0.645686	0.634249	1728 tags=25%	list=11%	signal=23%
REACTOME_SIGNAL_ATTENUATION	8	0.620548	1.209556	0.275449	0.646216	0.63477	2572 tags=50%	list=16%	signal=42%
WP_GPCR_S_PEPTIDE	35	0.571005	1.258604	0.277193	0.648475	0.636989	5416 tags=66%	list=34%	signal=43%
REACTOME_DNA_DOUBLE_STRAND_BREAK_RESPONSE	53	-0.45233	-1.16114	0.277108	0.648475	0.636989	2609 tags=28%	list=17%	signal=24%
REACTOME_TRAFFICKING_AND_PROCESSING_OF_ENDOSOMAL_TLR	11	0.626572	1.240433	0.277992	0.649431	0.637927	3953 tags=55%	list=25%	signal=41%
REACTOME_METAL_ION_SLC_TRANSPORTERS	19	0.626437	1.305266	0.280148	0.649731	0.638222	4982 tags=79%	list=32%	signal=54%
REACTOME_ENDOGENOUS_STEROLS	20	0.626585	1.300431	0.280603	0.649731	0.638222	229 tags=10%	list=1%	signal=10%
REACTOME_COHESIN_LOADING_ONTO_CHROMATIN	10	0.622124	1.219784	0.28	0.649731	0.638222	3172 tags=60%	list=20%	signal=48%
REACTOME_GAP_FILLING_DNA_REPAIR_SYNTHESIS_AND_LIGATION	21	-0.50945	-1.20315	0.279661	0.649731	0.638222	3984 tags=43%	list=25%	signal=32%
REACTOME_GLYCOPROTEIN_HORMONES	3	0.735013	1.185526	0.280943	0.649731	0.638222	2387 tags=67%	list=15%	signal=57%
REACTOME_PLATELET_HOMOEOSTASIS	71	0.499365	1.184591	0.28013	0.649731	0.638222	65 tags=3%	list=0%	signal=3%



REACTOME_SIGNALING_BY_FGFR4	33	-0.4749	-1.17695	0.278689	0.649731	0.638222	2834	tags=39%	list=18%	signal=32%
REACTOME_NEGATIVE_REGULATION_OF_MAPK_PATHWAY	42	-0.46471	-1.17157	0.28125	0.649731	0.638222	2948	tags=55%	list=19%	signal=45%
REACTOME_TRP_CHANNELS	21	0.622136	1.296574	0.284906	0.651475	0.639936	2976	tags=43%	list=19%	signal=35%
REACTOME_ANTIGEN_ACTIVATES_B_CELL_RECEPTOR_BCR_LEADING	22	0.610503	1.295861	0.288603	0.651475	0.639936	55	tags=5%	list=0%	signal=5%
BIOCARTA_TOLL_PATHWAY	24	0.603191	1.290131	0.284685	0.651475	0.639936	1955	tags=25%	list=12%	signal=22%
BIOCARTA_TEL_PATHWAY	17	0.632619	1.286723	0.287908	0.651475	0.639936	146	tags=6%	list=1%	signal=6%
WP_GLYCEROLIPIDS_AND_GLYCEROPHOSPHOLIPIDS	22	0.604974	1.284126	0.290441	0.651475	0.639936	2347	tags=23%	list=15%	signal=19%
REACTOME_SIGNALING_BY_ERYTHROPOIETIN	16	0.621258	1.265334	0.291506	0.651475	0.639936	3601	tags=44%	list=23%	signal=34%
REACTOME_METABOLISM_OF_NITRIC_OXIDE_NOS3_ACTIVATION_A	16	0.618022	1.258743	0.295367	0.651475	0.639936	65	tags=6%	list=0%	signal=6%
REACTOME_BUTYRATE_RESPONSE_FACTOR_1_BRF1_BINDS_AND_D	16	0.615343	1.253288	0.295367	0.651475	0.639936	159	tags=6%	list=1%	signal=6%
WP_GLYCOLYSIS_AND_GLUconeogenesis	38	0.563236	1.251329	0.290718	0.651475	0.639936	59	tags=5%	list=0%	signal=5%
WP_APOPTOSIS_MODULATION_BY_HSP70	16	0.614358	1.251282	0.297297	0.651475	0.639936	3832	tags=44%	list=24%	signal=33%
BIOCARTA_CARM1_PATHWAY	11	0.612836	1.213241	0.291506	0.651475	0.639936	1291	tags=45%	list=8%	signal=42%
REACTOME_RHOQ_GTPASE_CYCLE	58	0.523882	1.212929	0.283557	0.651475	0.639936	1313	tags=21%	list=8%	signal=19%
REACTOME_TRANSPORT_OF_ORGANIC_ANIONS	9	0.618137	1.203835	0.289063	0.651475	0.639936	3697	tags=67%	list=24%	signal=51%
REACTOME_ABC_TRANSPORTERS_IN_LIPID_Homeostasis	13	0.592578	1.199028	0.296512	0.651475	0.639936	3418	tags=62%	list=22%	signal=48%
REACTOME_TRANSPORT_OF_NUCLEOTIDE_SUGARS	9	0.612148	1.192171	0.292969	0.651475	0.639936	5311	tags=89%	list=34%	signal=59%
REACTOME_BICARBONATE_TRANSPORTERS	9	0.611417	1.190748	0.296875	0.651475	0.639936	1833	tags=33%	list=12%	signal=29%
WP_ALPHA_6_BETA_4_INTEGRIN_SIGNALING_PATHWAY	63	0.513456	1.188651	0.294416	0.651475	0.639936	340	tags=5%	list=2%	signal=5%
BIOCARTA_PLATELETAPP_PATHWAY	10	0.605959	1.18809	0.291429	0.651475	0.639936	4733	tags=60%	list=30%	signal=42%
REACTOME_CALNEXIN_CALRETICULIN_CYCLE	7	-0.59781	-1.18553	0.297405	0.651475	0.639936	676	tags=43%	list=4%	signal=41%
REACTOME_FRS_MEDIATED_FGFR2_SIGNALING	19	-0.51074	-1.1845	0.289417	0.651475	0.639936	2772	tags=32%	list=18%	signal=26%
REACTOME_TRYPTOPHAN_CATABOLISM	8	0.605587	1.180394	0.289421	0.651475	0.639936	1918	tags=38%	list=12%	signal=33%
REACTOME_NF_KB_IS_ACTIVATED_AND_SIGNALS_SURVIVAL	13	-0.53161	-1.17728	0.296296	0.651475	0.639936	676	tags=23%	list=4%	signal=22%
REACTOME_PYRIMIDINE_CATABOLISM	10	-0.56346	-1.17561	0.291405	0.651475	0.639936	959	tags=20%	list=6%	signal=19%
REACTOME_PURINE_SALVAGE	12	-0.54451	-1.17483	0.284536	0.651475	0.639936	3401	tags=42%	list=22%	signal=33%
REACTOME_TRANSCRIPTIONAL_ACTIVATION_OF_MITOCHONDRIAL_	10	-0.56288	-1.1744	0.291405	0.651475	0.639936	1529	tags=50%	list=10%	signal=45%
REACTOME_SCAVENGING_BY_CLASS_A_RECEPTORS	6	0.634659	1.171632	0.28655	0.651475	0.639936	3721	tags=50%	list=24%	signal=38%
REACTOME_ORGANIC_ANION_TRANSPORTERS	8	-0.58169	-1.17058	0.291417	0.651475	0.639936	716	tags=25%	list=5%	signal=5%
REACTOME_REGULATION_OF_CHOLESTEROL_BIOSYNTHESIS_BY_SRI	7	0.616895	1.169407	0.287425	0.651475	0.639936	1615	tags=29%	list=10%	signal=26%
BIOCARTA_MCALPAIN_PATHWAY	18	-0.50581	-1.16815	0.289641	0.651475	0.639936	3701	tags=67%	list=24%	signal=51%
REACTOME_ATTACHMENT_OF_GPI_ANCHOR_TO_UPAR	7	0.613469	1.162913	0.291417	0.651475	0.639936	3537	tags=71%	list=23%	signal=55%
WP_TRANSLATION_FACTORS	47	-0.45187	-1.16262	0.28436	0.651475	0.639936	4670	tags=64%	list=30%	signal=45%
REACTOME_LECTIN_PATHWAY_OF_COMPLEMENT_ACTIVATION	4	0.6773	1.161751	0.292829	0.651475	0.639936	1662	tags=25%	list=11%	signal=22%
REACTOME_G2_M_DNA_DAMAGE_CHECKPOINT	68	-0.44433	-1.16144	0.283208	0.651475	0.639936	2609	tags=24%	list=17%	signal=20%
REACTOME_ACTIVATION_OF_THE_TFAP2_AP_2_FAMILY_OF_TRANS	8	0.593089	1.156034	0.295409	0.651475	0.639936	1701	tags=25%	list=11%	signal=22%
REACTOME_FGFR2_ALTERNATIVE_SPLICING	17	-0.50051	-1.15512	0.295218	0.651475	0.639936	2615	tags=41%	list=17%	signal=34%
REACTOME_INHIBITION_OF_REPLICATION_INITIATION_OF_DAMAGI	10	-0.55353	-1.1549	0.297694	0.651475	0.639936	1776	tags=70%	list=11%	signal=62%
REACTOME_SIGNALING_BY_FGFR2	57	-0.44622	-1.14679	0.283251	0.651475	0.639936	2834	tags=37%	list=18%	signal=30%
REACTOME_IRS_MEDIATED_SIGNALLING	33	-0.46269	-1.14668	0.297424	0.651475	0.639936	534	tags=15%	list=3%	signal=15%
REACTOME_RHO_GTPASES_ACTIVATE_FORMINS	126	-0.42039	-1.13848	0.293447	0.651475	0.639936	2866	tags=32%	list=18%	signal=26%
REACTOME_CELL_CYCLE	543	-0.35476	-1.07902	0.295276	0.651475	0.639936	2878	tags=31%	list=18%	signal=26%
REACTOME_COLLAGEN_CHAIN_TRIMERIZATION	35	0.559045	1.232243	0.3	0.654307	0.642718	3579	tags=43%	list=23%	signal=33%
BIOCARTA_LONGEVITY_PATHWAY	14	0.581659	1.184873	0.30137	0.654307	0.642718	2223	tags=36%	list=14%	signal=31%
REACTOME_REGULATED_PROTEOLYSIS_OF_P75NTR	10	0.600022	1.17645	0.300952	0.654307	0.642718	4576	tags=60%	list=29%	signal=43%
REACTOME_PEPTIDE_HORMONE_BIOSYNTHESIS	5	0.652881	1.169767	0.30099	0.654307	0.642718	2387	tags=60%	list=15%	signal=51%
REACTOME_PROCESSING_OF_DNA_DOUBLE_STRAND_BREAK_ENDS	66	-0.44209	-1.1532	0.301746	0.654307	0.642718	1270	tags=14%	list=8%	signal=13%
REACTOME_CREB_PHOSPHORYLATION	7	0.605958	1.148674	0.301397	0.654307	0.642718	1291	tags=29%	list=8%	signal=26%
REACTOME_CYTOSOLIC_SENSORS_OF_PATHOGEN_ASSOCIATED_DN	31	-0.45342	-1.14046	0.301402	0.654307	0.642718	3135	tags=39%	list=20%	signal=31%
REACTOME_PEPTIDE_LIGAND_BINDING_RECEPTORS	100	-0.4212	-1.13726	0.302198	0.654434	0.642842	70	tags=3%	list=0%	signal=3%
BIOCARTA_TOB1_PATHWAY	10	0.597832	1.172155	0.302857	0.655007	0.643405	4633	tags=80%	list=30%	signal=56%
REACTOME_SLPB_DEPENDENT_PROCESSING_OF_REPLICATION_DEP	11	-0.54088	-1.15719	0.303719	0.655722	0.644108	5319	tags=73%	list=34%	signal=48%
REACTOME_MITOTIC_G1_PHASE_AND_G1_S_TRANSITION	127	-0.41174	-1.11942	0.303977	0.655722	0.644108	2063	tags=28%	list=13%	signal=24%
REACTOME_RHO_GTPASES_ACTIVATE_PAKS	22	-0.49238	-1.15923	0.305677	0.658533	0.646869	2708	tags=41%	list=17%	signal=34%
REACTOME_NUCLEAR_RECEPTOR_TRANSCRIPTION_PATHWAY	38	0.554667	1.232293	0.30648	0.659408	0.647728	1770	tags=18%	list=11%	signal=16%
REACTOME_METABOLISM_OF_CARBOHYDRATES	242	0.402659	1.105112	0.306902	0.659461	0.64778	2183	tags=21%	list=14%	signal=19%
REACTOME_GLOBAL_GENOME_NUCLEOTIDE_EXCISION_REPAIR_GG	80	-0.42228	-1.12635	0.307692	0.660306	0.64861	3153	tags=29%	list=20%	signal=23%
BIOCARTA_P35ALZHEIMERS_PATHWAY	6	-0.61582	-1.16137	0.308793	0.661814	0.650091	3139	tags=50%	list=20%	signal=40%
BIOCARTA_STRESS_PATHWAY	23	0.594729	1.265665	0.310219	0.664013	0.652251	1999	tags=26%	list=13%	signal=23%
REACTOME_MTORC1_MEDIATED_SIGNALLING	24	-0.47507	-1.13807	0.310962	0.664746	0.652972	2451	tags=46%	list=16%	signal=39%
REACTOME_REGULATION_OF_FZD_BY_UBIQUITINATION	18	0.601379	1.233146	0.311909	0.665059	0.653279	937	tags=17%	list=6%	signal=16%
REACTOME_IRAK1_RECRUITS_IKK_COMPLEX	14	-0.51836	-1.17131	0.311609	0.665059	0.653279	2489	tags=29%	list=16%	signal=24%
BIOCARTA_NFKB_PATHWAY	20	0.603375	1.252261	0.312618	0.665618	0.653828	425	tags=10%	list=3%	signal=10%
REACTOME_THE_FATTY_ACID_CYCLING_MODEL	4	-0.67437	-1.17679	0.313373	0.665618	0.653828	32	tags=25%	list=0%	signal=25%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_RUNX1	143	-0.4101	-1.10136	0.313218	0.665618	0.653828	3340	tags=41%	list=21%	signal=33%
BIOCARTA_IGF1_PATHWAY	22	0.584077	1.239769	0.316176	0.666458	0.654653	2170	tags=32%	list=14%	signal=27%
BIOCARTA_IGF1MOTOR_PATHWAY	18	0.599179	1.228633	0.31569	0.666458	0.654653	2170	tags=28%	list=14%	signal=24%
WP_FIBRIN_COMPLEMENT_RECEPTOR_3_SIGNALING_PATHWAY	34	0.552336	1.217196	0.314685	0.666458	0.654653	971	tags=9%	list=6%	signal=8%
REACTOME_LDL_CLEARANCE	15	-0.50148	-1.15151	0.316116	0.666458	0.654653	2285	tags=53%	list=15%	signal=46%
REACTOME_NEGATIVE_REGULATION_OF_ACTIVITY_OF_TFAP2_AP_2	6	0.616048	1.137274	0.315789	0.666458	0.654653	5184	tags=67%	list=33%	signal=45%
REACTOME_INSULIN_RECEPTOR_RECYCLING	25	-0.47038	-1.12719	0.31422	0.666458	0.654653	3303	tags=48%	list=21%	signal=38%
REACTOME_INTERLEUKIN_RECEPTOR_SHC_SIGNALING	16	0.590878	1.203458	0.316602	0.66651	0.654704	4553	tags=56%	list=29%	signal=40%
REACTOME_PLASMA_LIPOPROTEIN_ASSEMBLY	12	0.583665	1.17623	0.317215	0.666954	0.65514	3122	tags=58%	list=20%	signal=47%
REACTOME_SEMA4D_INDUCED_CELL_MIGRATION_AND_GROWTH_	11	-0.5239	-1.12087	0.318182	0.667298	0.655478	411	tags=64%	list=3%	signal=62%
BIOCARTA_BIOPEPTIDES_PATHWAY	27	-0.45527	-1.11896	0.317972	0.667298	0.655478	3624	tags=48%	list=23%	signal=37%
REACTOME_IL_6_TYPE_CYTOKINE_RECEPTOR_LIGAND_INTERACTIOI	12	0.579767	1.168375	0.319149	0.66764	0.655814	1067	tags=25%	list=7%	signal=23%
REACTOME_PHYSIOLOGICAL_FACTORS	5	0.641304	1.149024	0.318812	0.66764	0.655814	4091	tags=60%	list=26%	signal=44%
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_DNA_REPAIR_G	43	-0.43719	-1.104	0.319613	0.667769	0.655941	1863	tags=23%	list=12%	signal=21%
REACTOME_ROLE_OF_LAT2_NTAL_LAB_ON_CALCIIUM_MOBILIZATIC	12	0.575762	1.160304	0.321083	0.669158	0.657306	4553	tags=50%	list=29%	signal=36%
REACTOME_PLASMA_LIPOPROTEIN_CLEARANCE	28	-0.4485	-1.10358	0.320843	0.669158	0.657306	2489	tags=39%	list=16%	signal=33%
REACTOME_RHOBTB1_GTPASE_CYCLE	22	0.575064	1.220638	0.323529	0.669569	0.657709	1831	tags=23%	list=12%	signal=27%
BIOCARTA_INTRINSIC_PATHWAY	13	0.576933	1.167372	0.323643	0.669569	0.657709	4733	tags=69%	list=30%	signal=48%
REACTOME_COMMON_PATHWAY_OF_FIBRIN_CLOT_FORMATION	12	0.570007	1.148706	0.323017	0.669569	0.657709	2242	tags=42%	list=14%	signal=36%
REACTOME_HDL_REMODELING	5	0.638345	1.143723	0.322772	0.669569	0.657709	3799	tags=60%	list=24%	signal=46%
WP_STATIN_PATHWAY	14	0.560266	1.141295	0.324853	0.669569	0.657709	3799	tags=50%	list=24%	signal=38%
BIOCARTA_PRC2_PATHWAY	10	0.579781	1.136763	0.325714	0.669569	0.657709	4856	tags=70%	list=31%	signal=48%
REACTOME_RHO_GTPASES_ACTIVATE_PKNS	22	-0.48174	-1.1342	0.325328	0.669569	0.657709	3405	tags=55%	list=22%	signal=43%
BIOCARTA_CTBP1_PATHWAY	8	-0.55991	-1.12675	0.325349	0.669569	0.657709	3097	tags=62%	list=20%	signal=50%
REACTOME_NONCANONICAL_ACTIVATION_OF_NOTCH3	7	0.587098	1.112922	0.325349	0.669569	0.657709	3746	tags=71%	list=24%	signal=54%
REACTOME_ACYL_CHAIN_REMODELING_OF_PE	17	-0.48084	-1.10973	0.324324	0.669569	0.657709	525	tags=29%	list=3%	signal=28%



REACTOME_RESOLUTION_OF_SISTER_CHROMATID_COHESION	112	-0.40874	-1.08967	0.323699	0.669569	0.657709	2866	tags=29%	list=18%	signal=24%
REACTOME_GLCAGON LIKE PEPTIDE 1_GLP1_REGULATES_INSULI	29	0.556012	1.208822	0.326389	0.670126	0.658256	233	tags=7%	list=1%	signal=7%
REACTOME_RECEPTOR_TYPE_TYROSINE_PROTEIN_PHOSPHATASES	20	0.584837	1.213786	0.327684	0.671125	0.659238	1235	tags=45%	list=8%	signal=42%
REACTOME_SELECTIVE_AUTOPHAGY	57	-0.43073	-1.10698	0.327586	0.671125	0.659238	1662	tags=49%	list=11%	signal=44%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_E2F6	23	0.577524	1.22905	0.328467	0.671901	0.66	4856	tags=61%	list=31%	signal=42%
REACTOME_NETRIN_1_SIGNALING	21	0.572728	1.192671	0.330189	0.674592	0.662643	313	tags=10%	list=2%	signal=9%
WP_FOLIC_ACID_NETWORK	20	0.570891	1.184841	0.333333	0.676028	0.664053	62	tags=5%	list=0%	signal=5%
BIOCARTA_TCRA_PATHWAY	5	-0.63233	-1.15892	0.331992	0.676028	0.664053	2272	tags=100%	list=14%	signal=86%
BIOCARTA_HSWI_SNF_PATHWAY	10	-0.53222	-1.11044	0.333333	0.676028	0.664053	1295	tags=60%	list=8%	signal=55%
REACTOME_INACTIVATION_OF_CSF3_G_CSF_SIGNALING	17	-0.47398	-1.09391	0.33264	0.676028	0.664053	972	tags=35%	list=6%	signal=33%
BIOCARTA_CDK5_PATHWAY	11	-0.51	-1.09113	0.332645	0.676028	0.664053	3558	tags=73%	list=23%	signal=56%
REACTOME_TRANSCRIPTION_COUPLED_NUCLEOTIDE_EXCISION_REI	75	-0.41257	-1.09021	0.331606	0.676028	0.664053	3153	tags=28%	list=20%	signal=22%
REACTOME_MITOTIC_PROPHASE	81	-0.40952	-1.09806	0.334218	0.676994	0.665003	2834	tags=27%	list=18%	signal=22%
BIOCARTA_RELA_PATHWAY	14	0.55079	1.12199	0.334638	0.67702	0.665028	3519	tags=43%	list=22%	signal=33%
REACTOME_MULTIFUNCTIONAL_ANION_EXCHANGERS	6	0.601222	1.109904	0.335283	0.677499	0.665499	4347	tags=83%	list=28%	signal=60%
REACTOME_PROCESSING_OF_INTRONLESS_PRE_MRNAS	20	0.5677	1.178219	0.3371	0.677753	0.665748	4098	tags=50%	list=26%	signal=37%
REACTOME_MITOTIC_TELOPHASE_CYTOKINESIS	13	0.563014	1.139208	0.337209	0.677753	0.665748	3460	tags=54%	list=22%	signal=42%
WP_ESTROGEN_SIGNALING	73	0.475789	1.130606	0.336601	0.677753	0.665748	532	tags=7%	list=3%	signal=7%
REACTOME_MAP3K8_TPL2_DEPENDENT_MAPK1_3_ACTIVATION	13	-0.50357	-1.11518	0.337449	0.677753	0.665748	3063	tags=38%	list=20%	signal=31%
REACTOME_NEGATIVE_REGULATION_OF_FGFR3_SIGNALING	26	-0.45522	-1.10184	0.336406	0.677753	0.665748	2834	tags=46%	list=18%	signal=38%
REACTOME_OPIOID_SIGNALING	68	0.489612	1.14915	0.338308	0.678054	0.666044	200	tags=4%	list=1%	signal=4%
REACTOME_PROGRAMMED_CELL_DEATH	122	0.432331	1.108232	0.338415	0.678054	0.666044	97	tags=2%	list=1%	signal=2%
REACTOME_SYNTHESIS_OF_PIP3_AT_THE_GOLGI_MEMBRANE	15	0.553152	1.129525	0.339768	0.679946	0.667902	2783	tags=47%	list=18%	signal=38%
REACTOME_PHOSPHATE_BOND_HYDROLYSIS_BY_NTPDASE_PROTEI	6	0.600273	1.108152	0.341131	0.681851	0.669773	3007	tags=50%	list=19%	signal=40%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_MECP2	5	-0.62327	-1.14232	0.346076	0.681925	0.669846	221	tags=40%	list=1%	signal=39%
WP_ALZHEIMERS_DISEASE	69	0.481149	1.136089	0.343802	0.681925	0.669846	2077	tags=20%	list=13%	signal=18%
REACTOME_P38MAPK_EVENTS	7	-0.57058	-1.13152	0.347305	0.681925	0.669846	1828	tags=71%	list=12%	signal=63%
REACTOME_NEGATIVE_REGULATION_OF_TCF_DEPENDENT_SIGNALI	5	0.622863	1.115983	0.344554	0.681925	0.669846	5645	tags=80%	list=36%	signal=51%
REACTOME_CRMP5_IN_SEMA3A_SIGNALING	15	0.546334	1.115603	0.341699	0.681925	0.669846	2386	tags=40%	list=15%	signal=34%
REACTOME_SYNTHESIS_OF_BILE_ACIDS_AND_BILE_SALTS_VIA_24_I	9	0.571207	1.112438	0.34375	0.681925	0.669846	4187	tags=56%	list=27%	signal=41%
REACTOME_METALLOPROTEASE_DUBS	23	-0.46243	-1.1034	0.345815	0.681925	0.669846	3554	tags=48%	list=23%	signal=37%
REACTOME_PL_3K_CASCADE_FGFR4	13	-0.49374	-1.09342	0.347737	0.681925	0.669846	2767	tags=31%	list=18%	signal=25%
REACTOME_SIGNALING_BY_INSULIN_RECEPTOR	62	-0.4163	-1.0907	0.345588	0.681925	0.669846	3073	tags=29%	list=20%	signal=23%
REACTOME_FOXP0_MEDIATED_TRANSCRIPTION	21	-0.46177	-1.09056	0.347458	0.681925	0.669846	2365	tags=29%	list=15%	signal=24%
REACTOME_NUCLEOTIDE_SALVAGE	21	-0.46177	-1.09056	0.347458	0.681925	0.669846	3794	tags=48%	list=24%	signal=36%
REACTOME_INTERLEUKIN_27_SIGNALING	8	0.557294	1.086262	0.347305	0.681925	0.669846	5115	tags=75%	list=33%	signal=51%
REACTOME_PLASMA_LIPOPROTEIN_ASSEMBLY_REMODELING_AND	49	-0.4235	-1.08624	0.347722	0.681925	0.669846	1227	tags=29%	list=8%	signal=26%
REACTOME_ALPHA_PROTEIN_KINASE_1_SIGNALING_PATHWAY	11	-0.50184	-1.07367	0.345041	0.681925	0.669846	676	tags=27%	list=4%	signal=26%
REACTOME_TRANSCRIPTIONAL_ACTIVITY_OF_SMAD2_SMAD3_SMA	38	-0.42104	-1.06831	0.343387	0.681925	0.669846	676	tags=8%	list=4%	signal=8%
REACTOME_TRANSLESION_SYNTHESIS_BY_Y_FAMILY_DNA_POLYME	38	-0.4206	-1.06719	0.343387	0.681925	0.669846	3985	tags=39%	list=25%	signal=30%
WP_GPCR5_CLASS_B_SECRETINLIKE	19	0.560476	1.167828	0.348794	0.682131	0.670048	4297	tags=47%	list=27%	signal=34%
REACTOME_SIGNALING_BY_SCF_KIT	35	0.528235	1.164331	0.349123	0.682131	0.670048	316	tags=9%	list=2%	signal=8%
REACTOME_PHASE_2_PLATEAU_PHASE	12	0.550812	1.110024	0.350097	0.682131	0.670048	3083	tags=33%	list=20%	signal=27%
REACTOME_INSULIN_PROCESSING	10	-0.52723	-1.10002	0.350105	0.682131	0.670048	1480	tags=30%	list=9%	signal=27%
REACTOME_MRNA_DECAY_BY_5_TO_3_EXORIBONUCLEASE	14	-0.48566	-1.09742	0.350305	0.682131	0.670048	1430	tags=21%	list=9%	signal=19%
REACTOME_RAF_ACTIVATION	34	-0.4255	-1.06668	0.348837	0.682131	0.670048	3800	tags=53%	list=24%	signal=40%
REACTOME_INTRINSIC_PATHWAY_FOR_APOPTOSIS	37	-0.41773	-1.05995	0.351163	0.682999	0.670901	2839	tags=49%	list=18%	signal=40%
REACTOME_ARMS_MEDIATED_ACTIVATION	5	-0.61688	-1.13062	0.352113	0.684046	0.671929	2483	tags=80%	list=16%	signal=67%
REACTOME_CREATINE_METABOLISM	8	-0.54724	-1.10125	0.353293	0.684079	0.671962	722	tags=50%	list=5%	signal=48%
REACTOME_SHC_MEDIATED_CASCADE_FGFR4	12	-0.50481	-1.08917	0.352577	0.684079	0.671962	1909	tags=25%	list=12%	signal=22%
REACTOME_ASSEMBLY_OF_COLLAGEN_FIBRILS_AND_OTHER_MULT	42	-0.42182	-1.06343	0.353365	0.684079	0.671962	31	tags=5%	list=0%	signal=5%
REACTOME_ACTIVATION_OF_NIMA_KINASES_NEK9_NEK6_NEK7	5	-0.61573	-1.1285	0.354125	0.684751	0.672622	813	tags=80%	list=5%	signal=76%
REACTOME_RHOBTB_GTPASE_CYCLE	34	0.52287	1.152261	0.354895	0.684985	0.672852	1831	tags=26%	list=12%	signal=23%
REACTOME_REGULATED_NECROSIS	46	0.507358	1.142404	0.355172	0.684985	0.672852	37	tags=2%	list=0%	signal=2%
REACTOME_JNK_C_JUN_KINASES_PHOSPHORYLATION_AND_ACTIV	22	-0.46413	-1.09273	0.355895	0.684985	0.672852	4174	tags=59%	list=27%	signal=43%
REACTOME_VESICLE_MEDIATED_TRANSPORT	546	-0.33525	-1.02021	0.355731	0.684985	0.672852	2292	tags=25%	list=15%	signal=22%
REACTOME_REGULATION_OF_PTEN_LOCALIZATION	9	-0.52954	-1.08899	0.357143	0.686591	0.674429	676	tags=33%	list=4%	signal=32%
BIOCARTA_IL1R_PATHWAY	25	0.543018	1.167609	0.358657	0.686733	0.674569	1955	tags=24%	list=12%	signal=21%
BIOCARTA_NTHI_PATHWAY	20	0.548504	1.13838	0.359699	0.686733	0.674569	4633	tags=55%	list=30%	signal=39%
WP_GLUTATHIONE_METABOLISM	17	0.555252	1.129362	0.358925	0.686733	0.674569	1027	tags=18%	list=7%	signal=17%
REACTOME_ION_HOMEOSTASIS	48	0.496569	1.128912	0.359725	0.686733	0.674569	55	tags=2%	list=0%	signal=2%
REACTOME_ACYL_CHAIN_REMODELING_OF_PC	18	-0.46739	-1.07941	0.359408	0.686733	0.674569	264	tags=11%	list=2%	signal=11%
REACTOME_MRNA_CAPPING	28	-0.43557	-1.07177	0.358314	0.686733	0.674569	3443	tags=32%	list=22%	signal=25%
REACTOME_REGULATION_OF_PLK1_ACTIVITY_AT_G2_M_TRANSITIC	84	-0.39832	-1.05758	0.360111	0.686733	0.674569	3063	tags=35%	list=20%	signal=28%
REACTOME_SUMOYLATION	147	-0.39059	-1.05417	0.361032	0.686911	0.674744	552	tags=4%	list=4%	signal=4%
REACTOME_SIGNALING_BY_FGFR3	36	-0.41426	-1.04406	0.360656	0.686911	0.674744	2834	tags=36%	list=18%	signal=30%
REACTOME_ACYL_CHAIN_REMODELING_OF_CL	5	-0.61326	-1.12398	0.362173	0.688295	0.676103	820	tags=40%	list=5%	signal=38%
REACTOME_PHASE_1_INACTIVATION_OF_FAST_NA_CHANNELS	7	0.57482	1.089648	0.363273	0.689597	0.677382	1408	tags=29%	list=9%	signal=26%
REACTOME_SUMOYLATION_OF_SUMOYLATION_PROTEINS	32	0.522348	1.15131	0.365217	0.690141	0.677917	4965	tags=56%	list=32%	signal=39%
BIOCARTA_CERAMIDE_PATHWAY	22	0.539348	1.144828	0.365809	0.690141	0.677917	178	tags=5%	list=1%	signal=5%
REACTOME_SUMOYLATION_OF_CHROMATIN_ORGANIZATION_PRO	54	0.490372	1.126098	0.365646	0.690141	0.677917	4965	tags=52%	list=32%	signal=36%
REACTOME_EUKARYOTIC_TRANSLATION_TERMINATION	6	-0.58461	-1.10252	0.366053	0.690141	0.677917	733	tags=67%	list=5%	signal=64%
BIOCARTA_NDKDYNAMIN_PATHWAY	13	-0.48339	-1.07048	0.364198	0.690141	0.677917	4187	tags=54%	list=27%	signal=40%
REACTOME_DUAL_INCISION_IN_GG_NER	40	-0.41764	-1.0556	0.36534	0.690141	0.677917	5220	tags=45%	list=33%	signal=30%
REACTOME_NRAE_SIGNALS_DEATH_THROUGH_JNK	51	-0.4189	-1.07102	0.366748	0.690667	0.678434	467	tags=8%	list=3%	signal=8%
BIOCARTA_IGF1R_PATHWAY	22	0.539173	1.144456	0.367647	0.69127	0.679026	1518	tags=14%	list=10%	signal=12%
BIOCARTA_WNT_PATHWAY	21	0.547394	1.140807	0.367925	0.69127	0.679026	131	tags=5%	list=1%	signal=5%
REACTOME_RUNX3_REGULATES_YAP1_MEDIATED_TRANSCRIPTION	5	0.60597	1.085717	0.368317	0.69127	0.679026	5238	tags=60%	list=33%	signal=40%
REACTOME_EGFR_TRANSACTIVATION_BY_GASTRIN	6	-0.58376	-1.10091	0.370143	0.692776	0.680505	377	tags=67%	list=2%	signal=65%
REACTOME_HDL_ASSEMBLY	6	0.586261	1.082285	0.37037	0.692776	0.680505	3122	tags=67%	list=20%	signal=53%
REACTOME_TRAF6_MEDIATED_INDUCED_INDUCION_OF_TAK1_COMPLEX_W	16	-0.45783	-1.05918	0.369835	0.692776	0.680505	814	tags=44%	list=5%	signal=42%
WP_G13_SIGNALING_PATHWAY	38	0.513958	1.141849	0.371278	0.692877	0.680604	2399	tags=29%	list=15%	signal=25%
REACTOME_TRANSPORT_OF_FATTY_ACIDS	4	0.643489	1.103756	0.37251	0.692877	0.680604	3419	tags=50%	list=22%	signal=39%
REACTOME_REGULATION_OF_NF_KAPPA_B_SIGNALING	16	-0.45678	-1.05675	0.371901	0.692877	0.680604	2489	tags=44%	list=16%	signal=37%
REACTOME_SIGNALING_BY_NTRK1_TRKA	63	-0.39904	-1.04929	0.372263	0.692877	0.680604	3800	tags=48%	list=24%	signal=36%
REACTOME_TAK1_DEPENDENT_IKK_AND_NF_KAPPA_B_ACTIVATIO	37	-0.40656	-1.0316	0.372093	0.692877	0.680604	2489	tags=27%	list=16%	signal=23%
REACTOME_NUCLEOTIDE_EXCISION_REPAIR	107	-0.38667	-1.03709	0.373563	0.694059	0.681765	3153	tags=27%	list=20%	signal=22%
REACTOME_SUMOYLATION_OF_INTRACELLULAR_RECEPTORS	22	0.530141	1.125285	0.375	0.694497	0.682196	229	tags=9%	list=1%	signal=9%
BIOCARTA_RAS_PATHWAY	21	0.530936	1.106507	0.375472	0.694497	0.682196	1021	tags=10%	list=7%	signal=9%
BIOCARTA_UCALPAIN_PATHWAY	12	-0.49662	-1.0715	0.375258	0.694497	0.682196	3634	tags=58%	list=23%	signal=45%



REACTOME_RHO_GTPASE_EFFECTORS	233	-0.36311	-1.00652	0.375394	0.694497	0.682196	2866	tags=33%	list=18%	signal=27%
BIOCARTA_PDGF_PATHWAY	29	0.515789	1.121374	0.376736	0.695287	0.682972	2306	tags=28%	list=15%	signal=24%
REACTOME_SIGNALING_BY_NUCLEAR_RECEPTORS	157	0.402311	1.056853	0.376682	0.695287	0.682972	693	tags=7%	list=4%	signal=7%
REACTOME_VOLTAGE_GATED_POTASSIUM_CHANNELS	37	0.515043	1.137105	0.377622	0.695378	0.683061	4511	tags=59%	list=29%	signal=42%
REACTOME_ALTERNATIVE_COMPLEMENT_ACTIVATION	3	0.685003	1.104863	0.37721	0.695378	0.683061	1121	tags=33%	list=7%	signal=31%
REACTOME_P75NTR_RECRUITS_SIGNALLING_COMPLEXES	13	-0.47811	-1.05879	0.378601	0.696407	0.684072	676	tags=38%	list=4%	signal=37%
REACTOME_FORMATION_OF_XYLULOSE_5_PHOSPHATE	5	-0.60564	-1.11	0.380282	0.697953	0.685591	2307	tags=60%	list=15%	signal=51%
REACTOME_RUNX3_REGULATES_CDKN1A_TRANSCRIPTION	5	0.598335	1.072037	0.380198	0.697953	0.685591	4628	tags=80%	list=29%	signal=56%
REACTOME_RHO_GTPASES_ACTIVATE_NADPH_OXIDASES	20	-0.44495	-1.04508	0.382166	0.700637	0.688227	2990	tags=30%	list=19%	signal=24%
REACTOME_FRS_MEDIATED_FGFR1_SIGNALING	18	-0.44685	-1.03197	0.382664	0.700777	0.688364	2772	tags=33%	list=18%	signal=27%
REACTOME_POST_TRANSLATIONAL_MODIFICATION_SYNTHESIS_OF_BIOCARTA_SUMO_PATHWAY	60	0.47364	1.096313	0.384874	0.702501	0.690057	2147	tags=25%	list=14%	signal=22%
REACTOME_VITAMIN_B1_THIAMIN_METABOLISM	6	-0.57264	-1.07994	0.384458	0.702501	0.690057	1155	tags=33%	list=7%	signal=31%
REACTOME_NUCLEAR_PORE_COMPLEX_NPC_DISASSEMBLY	5	0.597878	1.071219	0.384158	0.702501	0.690057	926	tags=20%	list=6%	signal=19%
REACTOME_SODIUM_COUPLED_SULPHATE_DI_AND_TRI_CARBOXYL	30	0.507655	1.111932	0.387153	0.70299	0.690538	4466	tags=47%	list=28%	signal=33%
WP_DRAVET_SYNDROME_SCN1AA1783V_POINT_MUTATION_MODEL	3	0.679164	1.095445	0.387033	0.70299	0.690538	545	tags=33%	list=3%	signal=32%
REACTOME_RHO_GTPASE_CYCLE	71	0.459848	1.090849	0.387622	0.70299	0.690538	2672	tags=32%	list=17%	signal=27%
REACTOME_MICRORNA_MIRNA_BIOGENESIS	72	0.456311	1.085669	0.386623	0.70299	0.690538	471	tags=10%	list=3%	signal=9%
REACTOME_CELLULAR_RESPONSES_TO_STIMULI	6	0.578524	1.068002	0.385965	0.70299	0.690538	1940	tags=50%	list=12%	signal=44%
REACTOME_VXPX_CARGO_TARGETING_TO_CILIUM	422	-0.33653	-1.0052	0.387681	0.70299	0.690538	1890	tags=25%	list=12%	signal=22%
BIOCARTA_ETS_PATHWAY	20	-0.43647	-1.02093	0.388535	0.70377	0.691304	1480	tags=15%	list=9%	signal=14%
BIOCARTA_ERBB4_PATHWAY	17	0.531009	1.080051	0.389635	0.703873	0.691406	3196	tags=59%	list=20%	signal=47%
REACTOME_RNA_POLYMERASE_III_TRANSCRIPTION_INITIATION_FRI	6	0.575277	1.062008	0.389864	0.703873	0.691406	2899	tags=50%	list=18%	signal=41%
REACTOME_CELL_DEATH_SIGNALING_VIA_NFAT3_AND_NFAT4	27	-0.42531	-1.04533	0.389401	0.703873	0.691406	2109	tags=41%	list=13%	signal=35%
REACTOME_SIGNALING_BY_CSF3_G-CSF	69	-0.39326	-1.02723	0.390428	0.704127	0.691655	676	tags=9%	list=4%	signal=8%
WP_G1_TO_S_CELL_CYCLE_CONTROL	21	-0.43865	-1.03595	0.391949	0.704575	0.692095	2562	tags=33%	list=16%	signal=28%
REACTOME_ALPHA_LINOLENIC_OMEGA3_AND_LINOLEIC_OMEGA6	58	-0.40056	-1.0358	0.391626	0.704575	0.692095	523	tags=5%	list=3%	signal=5%
WP_MACROPHAGE_MARKERS	12	-0.47998	-1.03561	0.391753	0.704575	0.692095	3881	tags=50%	list=25%	signal=38%
REACTOME_INTERLEUKIN_6_FAMILY_SIGNALING	10	0.538927	1.056661	0.392381	0.704589	0.692109	57	tags=10%	list=0%	signal=10%
REACTOME_GLYCOSPHINGOLIPID_METABOLISM	17	0.527767	1.073458	0.393474	0.705789	0.693287	2152	tags=29%	list=14%	signal=25%
BIOCARTA_CTCF_PATHWAY	38	0.496698	1.103502	0.394046	0.706051	0.693545	4386	tags=63%	list=28%	signal=46%
WP_EICOSANOID_METABOLISM_VIA_CYCLOOXYGENASES_COX	23	0.509906	1.085151	0.39781	0.709263	0.6967	3601	tags=52%	list=23%	signal=40%
REACTOME_ACROSOME_REACTION_AND_SPERM_OOCYTE_MEMBR	23	0.509517	1.084323	0.39781	0.709263	0.6967	20	tags=4%	list=0%	signal=4%
WP_CALCIIUM_REGULATION_IN_CARDIAC_CELLS	3	0.668951	1.078972	0.398821	0.709263	0.6967	3757	tags=67%	list=24%	signal=51%
BIOCARTA_SODD_PATHWAY	131	0.415153	1.067368	0.398462	0.709263	0.6967	1191	tags=10%	list=8%	signal=9%
REACTOME_HOMOLOGY_DIRECTED_REPAIR	9	0.531767	1.035627	0.398438	0.709263	0.6967	7273	tags=89%	list=46%	signal=46%
REACTOME_AURKA_ACTIVATION_BY_TPX2	106	-0.37819	-1.01136	0.398827	0.709263	0.6967	2609	tags=17%	list=17%	signal=14%
REACTOME_ANTIGEN_PRESENTATION_FOLDING_ASSEMBLY_AND_P	70	-0.38698	-1.01117	0.397985	0.709263	0.6967	3020	tags=34%	list=19%	signal=28%
WP_G_PROTEIN_SIGNALING_PATHWAYS	27	0.508891	1.094426	0.399648	0.709963	0.697387	3907	tags=33%	list=25%	signal=25%
WP_LEPTININSULIN_SIGNALING_OVERLAP	84	0.442676	1.077994	0.400936	0.71149	0.698888	200	tags=4%	list=1%	signal=4%
REACTOME_MET_ACTIVATES_PI3K_AKT_SIGNALING	15	0.505859	1.032954	0.401544	0.711809	0.699201	4464	tags=47%	list=28%	signal=33%
REACTOME_INTERLEUKIN_4_AND_INTERLEUKIN_13_SIGNALING	6	0.568286	1.094101	0.403509	0.7143	0.701648	3621	tags=33%	list=23%	signal=26%
REACTOME_DOWNSTREAM_SIGNALING_OF_ACTIVATED_FGFR1	10	0.532712	1.044476	0.40381	0.7143	0.701648	4601	tags=60%	list=29%	signal=42%
REACTOME_ACTIVATION_OF_G_PROTEIN_GATED_POTASSIUM_CHA	26	0.505852	1.091447	0.40493	0.715519	0.702845	1518	tags=15%	list=10%	signal=14%
WP_WHITE_FAT_CELL_DIFFERENTIATION	26	0.504919	1.089434	0.40669	0.715708	0.70303	71	tags=4%	list=0%	signal=4%
BIOCARTA_RHO_PATHWAY	29	0.489066	1.063275	0.409722	0.715708	0.70303	2004	tags=34%	list=13%	signal=30%
REACTOME_WNT_LIGAND_BIOGENESIS_AND_TRAFFICKING	20	0.511699	1.061994	0.40678	0.715708	0.70303	2517	tags=30%	list=16%	signal=25%
WP_HEART_DEVELOPMENT	21	0.507971	1.058647	0.411321	0.715708	0.70303	2701	tags=29%	list=17%	signal=24%
REACTOME_NADE_MODULATES_DEATH_SIGNALING	30	0.483102	1.058153	0.413194	0.715708	0.70303	1537	tags=33%	list=10%	signal=30%
BIOCARTA_MAL_PATHWAY	6	-0.5609	-1.05781	0.413088	0.715708	0.70303	1952	tags=50%	list=12%	signal=44%
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_GENES_INVOLV	17	0.519355	1.056349	0.40691	0.715708	0.70303	1295	tags=24%	list=8%	signal=22%
REACTOME_REGULATION_OF_RUNX1_EXPRESSION_AND_ACTIVITY	7	-0.53141	-1.05385	0.411178	0.715708	0.70303	4311	tags=71%	list=27%	signal=52%
REACTOME_METABOLISM_OF_VITAMINS_AND_COFACTORS	7	-0.53102	-1.05307	0.411178	0.715708	0.70303	1876	tags=43%	list=12%	signal=38%
REACTOME_FGFR2C_LIGAND_BINDING_AND_ACTIVATION	150	0.399484	1.044376	0.410606	0.715708	0.70303	423	tags=4%	list=3%	signal=4%
REACTOME_TRAFFICKING_OF_GLU_R2_CONTAINING_AMPA_RECEPT	8	-0.51569	-1.03776	0.409182	0.715708	0.70303	1909	tags=25%	list=12%	signal=22%
REACTOME_INTERLEUKIN_6_SIGNALING	16	0.507989	1.034635	0.407336	0.715708	0.70303	1152	tags=19%	list=7%	signal=17%
REACTOME_AGGREGPHAGY	8	0.529186	1.031475	0.407186	0.715708	0.70303	2152	tags=38%	list=14%	signal=32%
REACTOME_APOPTOTIC_FACTOR_MEDIATED_RESPONSE	30	-0.40616	-1.01968	0.408451	0.715708	0.70303	1568	tags=43%	list=10%	signal=39%
REACTOME_INSULIN_RECEPTOR_SIGNALING_CASCADE	16	-0.43557	-1.00769	0.413223	0.715708	0.70303	2834	tags=38%	list=18%	signal=31%
REACTOME_CELL_EXTRACELLULAR_MATRIX_INTERACTIONS	38	-0.39659	-1.00625	0.408353	0.715708	0.70303	534	tags=8%	list=3%	signal=8%
BIOCARTA_PML_PATHWAY	18	-0.43362	-1.00143	0.412262	0.715708	0.70303	933	tags=39%	list=6%	signal=37%
REACTOME_PL_3K_CASCADE_FGFR2	15	-0.4361	-1.00139	0.411157	0.715708	0.70303	552	tags=27%	list=4%	signal=26%
REACTOME_INWARDLY_RECTIFYING_K_CHANNELS	18	-0.43164	-0.99684	0.412262	0.715708	0.70303	2772	tags=28%	list=18%	signal=23%
REACTOME_DEGRADATION_OF_BETA_CATENIN_BY_THE_DESTRUCT	31	0.479509	1.053984	0.414634	0.717403	0.704696	71	tags=3%	list=0%	signal=3%
WP_ALANINE_AND_ASPARTATE_METABOLISM	78	-0.3799	-1.00358	0.415344	0.717645	0.704933	3355	tags=56%	list=21%	signal=45%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_RUNX3	13	-0.44594	-0.98756	0.415638	0.717645	0.704933	3417	tags=62%	list=22%	signal=48%
REACTOME_IRF3_MEDIATED_INDUCION_OF_TYPE_I_IFN	76	0.445774	1.061636	0.418152	0.72053	0.707768	722	tags=9%	list=5%	signal=9%
REACTOME_TRANSPORT_OF_THE_SLPB_DEPENDANT_MATURE_MR	4	0.617724	1.059562	0.418327	0.72053	0.707768	724	tags=50%	list=5%	signal=48%
REACTOME_MAPK_FAMILY_SIGNALING_CASCADES	33	0.480224	1.059026	0.41913	0.72053	0.707768	4931	tags=52%	list=31%	signal=35%
REACTOME_HYALURONAN_METABOLISM	268	0.370634	1.028734	0.42029	0.72053	0.707768	661	tags=6%	list=4%	signal=6%
REACTOME_NFAT3_SIGNALS_CELL_DEATH_FROM_THE_NUCLEUS	17	0.500229	1.017447	0.420345	0.72053	0.707768	5438	tags=65%	list=35%	signal=42%
REACTOME_TRISTETRAPROLIN_TTP_ZFP36_BINDS_AND_DESTABILIZ	14	-0.44337	-1.00187	0.419552	0.72053	0.707768	676	tags=29%	list=4%	signal=27%
REACTOME_GLCUCURONIDATION	16	-0.43009	-0.99499	0.419421	0.72053	0.707768	3659	tags=56%	list=23%	signal=43%
REACTOME_OTHER_SEMAPHORIN_INTERACTIONS	5	-0.58704	-1.07592	0.422535	0.722598	0.709799	3559	tags=60%	list=23%	signal=46%
BIOCARTA_AKAP95_PATHWAY	14	0.499914	1.018354	0.422701	0.722598	0.709799	2925	tags=36%	list=19%	signal=29%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_SMALL_RNAS	10	0.518899	1.017393	0.422857	0.722598	0.709799	1739	tags=40%	list=11%	signal=26%
WP_MAPK_CASCADE	31	0.475372	1.044889	0.423345	0.722689	0.709888	4466	tags=48%	list=28%	signal=35%
REACTOME_BIOSYNTHESIS_OF_THE_N_GLYCAN_PRECURSOR_DOLIC	28	0.488305	1.056991	0.424348	0.722986	0.71018	679	tags=11%	list=4%	signal=10%
REACTOME_METABOLISM_OF_FAT_SOLUBLE_VITAMINS	70	0.446325	1.054395	0.424793	0.722986	0.71018	2815	tags=31%	list=18%	signal=26%
REACTOME_PROLONGED_ERK_ACTIVATION_EVENTS	34	0.474716	1.046142	0.424825	0.722986	0.71018	4566	tags=44%	list=29%	signal=31%
WP_KIT_RECEPTOR_SIGNALING_PATHWAY	14	-0.43849	-0.99084	0.425662	0.723669	0.710851	3558	tags=50%	list=23%	signal=39%
BIOCARTA_ARENRF2_PATHWAY	66	0.449505	1.049862	0.427621	0.725514	0.712663	2426	tags=23%	list=15%	signal=19%
REACTOME_UNBLOCKING_OF_NMDA_RECEPTORS_GLUTAMATE_BII	18	0.487571	0.999779	0.427221	0.725514	0.712663	2134	tags=33%	list=14%	signal=29%
REACTOME_MET_RECEPTOR_RECYCLING	22	0.484783	1.029007	0.428309	0.725644	0.712791	2031	tags=36%	list=13%	signal=32%
REACTOME_HATS_ACETYLATE_HISTONES	10	0.511616	1.003114	0.428571	0.725644	0.712791	1299	tags=20%	list=8%	signal=18%
REACTOME_HYDROLYSIS_OF_LPC	41	0.477724	1.066554	0.433276	0.727113	0.714234	550	tags=7%	list=4%	signal=7%
BIOCARTA_FAS_PATHWAY	5	-0.57508	-1.054	0.438632	0.727113	0.714234	264	tags=40%	list=2%	signal=39%
REACTOME_SIGNALING_BY_MET	27	0.486063	1.045332	0.431338	0.727113	0.714234	178	tags=4%	list=1%	signal=4%
BIOCARTA_FMLP_PATHWAY	66	0.44523	1.039876	0.434276	0.727113	0.714234	2599	tags=26%	list=17%	signal=22%
REACTOME_ROS_AND_RNS_PRODUCTION_IN_PHAGOCYTES	29	0.477772	1.038722	0.430556	0.727113	0.714234	679	tags=14%	list=4%	signal=13%
	31	0.470485	1.034148	0.437282	0.727113	0.714234	65	tags=3%	list=0%	signal=3%



REACTOME_TNFR1_INDUCED_NFKAPPAB_SIGNALING_PATHWAY	32	0.468965	1.033649	0.436522	0.727113	0.714234	426	tags=9%	list=3%	signal=9%
REACTOME_ALPHA_OXIDATION_OF_PHYTANATE	6	-0.54515	-1.02809	0.437628	0.727113	0.714234	3555	tags=67%	list=23%	signal=52%
REACTOME_PHOSPHOLIPASE_C_MEDIATED_CASCADE_FGFR4	8	-0.5009	-1.008	0.437126	0.727113	0.714234	1909	tags=25%	list=12%	signal=22%
BIOCARTA_FBW7_PATHWAY	8	0.515892	1.005562	0.431138	0.727113	0.714234	2960	tags=62%	list=19%	signal=51%
REACTOME_ROLE_OF_PHOSPHOLIPIDS_IN_PHAGOCYTOSIS	20	0.480518	0.99728	0.433145	0.727113	0.714234	4808	tags=55%	list=31%	signal=38%
WP_IRON_HOMEOSTASIS	10	0.507651	0.99534	0.434286	0.727113	0.714234	3571	tags=50%	list=23%	signal=39%
REACTOME_LGI_ADAM_INTERACTIONS	14	0.487747	0.993568	0.436399	0.727113	0.714234	2882	tags=43%	list=18%	signal=35%
REACTOME_SIGNALLING_TO_RAS	12	-0.45815	-0.98849	0.435052	0.727113	0.714234	1828	tags=25%	list=12%	signal=22%
REACTOME_CYTOSOLIC_SULFONATION_OF_SMALL_MOLECULES	15	0.481212	0.982625	0.438224	0.727113	0.714234	3971	tags=53%	list=25%	signal=40%
REACTOME_RA_BIOSYNTHESIS_PATHWAY	12	-0.45535	-0.98246	0.437113	0.727113	0.714234	1177	tags=33%	list=7%	signal=31%
REACTOME_MITOTIC_SPINDLE_CHECKPOINT	106	-0.36564	-0.97782	0.43695	0.727113	0.714234	3455	tags=42%	list=22%	signal=33%
WP_CHEMOKINE_SIGNALING_PATHWAY	138	-0.36114	-0.9739	0.433908	0.727113	0.714234	467	tags=4%	list=3%	signal=4%
REACTOME_DOWNSTREAM_SIGNALING_OF_ACTIVATED_FGFR4	19	-0.41958	-0.97309	0.434125	0.727113	0.714234	2767	tags=26%	list=18%	signal=22%
REACTOME_DNA_DAMAGE_BYPASS	47	-0.37686	-0.96963	0.436019	0.727113	0.714234	3985	tags=43%	list=25%	signal=32%
WP_OMEGA9_FATTY_ACID_SYNTHESIS	13	-0.43483	-0.96295	0.438272	0.727113	0.714234	2819	tags=38%	list=18%	signal=32%
REACTOME_APOPTOTIC_EXECUTION_PHASE	43	0.463901	1.040004	0.449915	0.730507	0.717568	97	tags=5%	list=1%	signal=5%
REACTOME_COLLAGEN_FORMATION	72	0.435248	1.035556	0.445351	0.730507	0.717568	3382	tags=50%	list=22%	signal=39%
REACTOME_CLASS_B_2_SECRETIN_FAMILY_RECEPTORS	41	0.463296	1.034341	0.448873	0.730507	0.717568	66	tags=2%	list=0%	signal=2%
REACTOME_RHOA_GTPASE_CYCLE	137	0.400698	1.033813	0.448171	0.730507	0.717568	1649	tags=17%	list=10%	signal=15%
BIOCARTA_MRP_PATHWAY	4	0.601222	1.031257	0.448207	0.730507	0.717568	4291	tags=75%	list=27%	signal=55%
REACTOME_VISUAL_PHOTOTRANSDUCTION	61	0.443525	1.029081	0.447811	0.730507	0.717568	179	tags=3%	list=1%	signal=3%
REACTOME_VEGFR2_MEDIATED_VASCULAR_PERMEABILITY	29	0.470346	1.022576	0.444444	0.730507	0.717568	65	tags=3%	list=0%	signal=3%
WP_RETINOL_METABOLISM	29	0.468738	1.019081	0.449653	0.730507	0.717568	1217	tags=17%	list=8%	signal=8%
REACTOME_NEUROTRANSMITTER_CLEARANCE	6	-0.53971	-1.01783	0.449898	0.730507	0.717568	5617	tags=83%	list=36%	signal=54%
WP_IL5_SIGNALING_PATHWAY	66	0.435371	1.01685	0.449251	0.730507	0.717568	2285	tags=18%	list=15%	signal=16%
REACTOME_INTERACTION_BETWEEN_L1_AND_ANKYRINS	10	-0.48148	-1.00458	0.444444	0.730507	0.717568	1464	tags=30%	list=9%	signal=27%
BIOCARTA_GLEEVEC_PATHWAY	23	0.46959	0.999354	0.445255	0.730507	0.717568	1021	tags=9%	list=7%	signal=8%
REACTOME_REGULATION_OF_IFNA_IFNB_SIGNALING	8	0.511695	0.997382	0.443114	0.730507	0.717568	3398	tags=50%	list=22%	signal=39%
BIOCARTA_IL10_PATHWAY	9	-0.47922	-0.98551	0.44898	0.730507	0.717568	2346	tags=56%	list=15%	signal=47%
BIOCARTA_BTG2_PATHWAY	9	-0.47844	-0.9839	0.44898	0.730507	0.717568	3898	tags=67%	list=25%	signal=50%
WP_ONECARBON_METABOLISM	26	-0.40113	-0.97091	0.447005	0.730507	0.717568	3396	tags=42%	list=22%	signal=33%
REACTOME_SIGNALLING_TO_ERKS	26	-0.40055	-0.9695	0.447005	0.730507	0.717568	2948	tags=38%	list=19%	signal=31%
REACTOME_RHOI_GTPASE_CYCLE	16	0.475267	0.967991	0.447876	0.730507	0.717568	2825	tags=44%	list=18%	signal=36%
REACTOME_TERMINATION_OF_TRANSLESION_DNA_SYNTHESIS	31	-0.38375	-0.96522	0.443925	0.730507	0.717568	3985	tags=35%	list=25%	signal=27%
REACTOME_MAPK_TARGETS_NUCLEAR_EVENTS_MEDIATED_BY_MA	28	-0.39187	-0.96423	0.442623	0.730507	0.717568	3800	tags=57%	list=24%	signal=43%
REACTOME_CLASS_I_MHC_MEDIATED_ANTIGEN_PROCESSING_PRE'	323	-0.32546	-0.94988	0.444444	0.730507	0.717568	3367	tags=31%	list=21%	signal=25%
REACTOME_DRUG_MEDIATED_INHIBITION_OF_CDK4_CDK6_ACTIVI	5	-0.56494	-1.03542	0.450704	0.731074	0.718125	2337	tags=60%	list=15%	signal=51%
BIOCARTA_VIP_PATHWAY	24	0.466286	0.997314	0.452252	0.731442	0.718486	1576	tags=12%	list=10%	signal=11%
REACTOME_NEGATIVE_REGULATORS_OF_DDX58_IFIH1_SIGNALING	14	-0.42341	-0.95677	0.452138	0.731442	0.718486	676	tags=36%	list=4%	signal=34%
REACTOME_ERK_MAPK_TARGETS	19	-0.40708	-0.9441	0.451404	0.731442	0.718486	3800	tags=58%	list=24%	signal=44%
WP_GLUCCURONIDATION	7	-0.50512	-1.00171	0.453094	0.73209	0.719123	3559	tags=57%	list=23%	signal=44%
REACTOME_ACTIVATION_OF_THE_PHOTOTRANSDUCTION_CASCADEI	3	-0.659	-1.06209	0.454361	0.732652	0.719675	2142	tags=100%	list=14%	signal=86%
REACTOME_ACYL_CHAIN_REMODELING_OF_PG	10	-0.47337	-0.98765	0.454927	0.732652	0.719675	48	tags=10%	list=0%	signal=10%
REACTOME_RNA_POLYMERASE_II_PROMOTER_ESCAPE	44	-0.37428	-0.95074	0.455206	0.732652	0.719675	2539	tags=34%	list=16%	signal=29%
REACTOME_DUAL_INCISION_IN_TC_NER	63	-0.35761	-0.94033	0.454988	0.732652	0.719675	2489	tags=43%	list=16%	signal=36%
BIOCARTA_HBX_PATHWAY	7	-0.49923	-0.99003	0.457086	0.734347	0.721339	609	tags=43%	list=4%	signal=41%
REACTOME_DNAFRAGMENT_PATHWAY	9	-0.47346	-0.97366	0.457143	0.734347	0.721339	5980	tags=47%	list=38%	signal=41%
REACTOME_MAPK1_ERK2_ACTIVATION	7	0.528508	1.001858	0.459082	0.736038	0.723	751	tags=29%	list=5%	signal=27%
REACTOME_DARPP_32_EVENTS	17	0.473642	0.963369	0.458733	0.736038	0.723	137	tags=6%	list=1%	signal=6%
REACTOME_SYNTHESIS_OF_PE	12	0.478957	0.965218	0.460348	0.736091	0.723053	3914	tags=58%	list=25%	signal=44%
BIOCARTA_BARRESTIN_PATHWAY	11	-0.45047	-0.96378	0.460744	0.736091	0.723053	3130	tags=45%	list=20%	signal=36%
REACTOME_ANTIMICROBIAL_PEPTIDES	18	-0.41247	-0.95258	0.460888	0.736091	0.723053	3183	tags=28%	list=20%	signal=22%
REACTOME_TRAF6_MEDIATED_NF_KB_ACTIVATION	14	-0.41676	-0.94175	0.460285	0.736091	0.723053	2314	tags=29%	list=15%	signal=24%
BIOCARTA_PTC1_PATHWAY	11	0.494395	0.978761	0.46139	0.736185	0.723145	994	tags=18%	list=6%	signal=17%
BIOCARTA_EGF_PATHWAY	28	0.468434	1.013976	0.462609	0.737421	0.72436	1955	tags=18%	list=12%	signal=16%
BIOCARTA_TNFR1_PATHWAY	27	0.468919	1.008462	0.466549	0.738037	0.724964	178	tags=4%	list=1%	signal=4%
REACTOME_ATTENUATION_PHASE	12	0.474079	0.955388	0.466151	0.738037	0.724964	3832	tags=50%	list=24%	signal=38%
REACTOME_RETROGRADE_TRANSPORT_AT_THE_TRANS_GOLGI_NE'	45	-0.37427	-0.95454	0.463942	0.738037	0.724964	3287	tags=38%	list=21%	signal=30%
REACTOME_INTERFERON_ALPHA_BETA_SIGNALING	15	0.466448	0.952478	0.465251	0.738037	0.724964	3398	tags=40%	list=22%	signal=31%
REACTOME_SIGNALING_BY_NTRKS	74	-0.35984	-0.9496	0.464935	0.738037	0.724964	3800	tags=45%	list=24%	signal=34%
REACTOME_GENERATION_OF_SECOND_MESSENGER_MOLECULES	18	-0.40955	-0.94583	0.465116	0.738037	0.724964	2772	tags=33%	list=14%	signal=29%
REACTOME_SHC_MEDIATED_CASCADE_FGFR2	17	-0.4089	-0.9437	0.465696	0.738037	0.724964	377	tags=24%	list=2%	signal=23%
REACTOME_FORMATION_OF_INCISION_COMPLEX_IN_GG_NER	42	-0.37426	-0.94353	0.466346	0.738037	0.724964	3355	tags=24%	list=21%	signal=19%
REACTOME_TRANSCRIPTIONAL_REGULATION_BY_THE_AP_2_TFAP2	17	0.46857	0.953053	0.46833	0.738743	0.725658	5184	tags=53%	list=33%	signal=36%
REACTOME_MITOTIC_PROMETAPHASE	183	-0.34739	-0.94974	0.467456	0.738743	0.725658	3259	tags=31%	list=21%	signal=25%
REACTOME_RHO_GTPASES_ACTIVATE_IQGAPS	25	-0.39563	-0.94807	0.46789	0.738743	0.725658	1568	tags=48%	list=10%	signal=43%
REACTOME_SYNTHESIS_OF_12_EICOSATETRAENOIC_ACID_DERIVAT	5	-0.55716	-1.02116	0.468813	0.738803	0.725717	3501	tags=60%	list=22%	signal=47%
REACTOME_RELAXIN_RECEPTORS	4	0.586876	1.00665	0.472112	0.739464	0.726366	3871	tags=50%	list=25%	signal=38%
WP_IL6_SIGNALING_PATHWAY	97	0.40606	1.004319	0.47352	0.739464	0.726366	751	tags=7%	list=5%	signal=7%
REACTOME_TRANSPORT_OF_MATURE_MRNAS_DERIVED_FROM_IN	40	0.45007	1.001859	0.473043	0.739464	0.726366	5136	tags=50%	list=33%	signal=34%
REACTOME_SYNTHESIS_OF_DOLICHYL_PHOSPHATE	6	-0.5292	-0.99802	0.470348	0.739464	0.726366	157	tags=17%	list=1%	signal=17%
REACTOME_RHOH_GTPASE_CYCLE	35	0.44923	0.990189	0.473684	0.739464	0.726366	841	tags=11%	list=5%	signal=11%
REACTOME_SEMA3A_PAK_DEPENDENT_AXON_REPULSION	14	0.466256	0.94979	0.473581	0.739464	0.726366	2386	tags=43%	list=15%	signal=36%
REACTOME_P75_NTR_RECEPTOR_MEDIATED_SIGNALLING	84	-0.35657	-0.94674	0.473684	0.739464	0.726366	676	tags=8%	list=4%	signal=8%
BIOCARTA_ERAD_PATHWAY	14	0.464463	0.946137	0.473581	0.739464	0.726366	3935	tags=71%	list=25%	signal=43%
REACTOME_FRS_MEDIATED_FGFR3_SIGNALING	16	-0.40017	-0.92579	0.47314	0.739464	0.726366	1909	tags=31%	list=12%	signal=27%
REACTOME_P75NTR_SIGNALS_VIA_NF_KB	16	-0.39977	-0.92485	0.47314	0.739464	0.726366	676	tags=19%	list=4%	signal=18%
REACTOME_CREB3_FACTORS_ACTIVATING_GENES	5	0.561147	1.005407	0.475248	0.741208	0.728079	5155	tags=60%	list=33%	signal=40%
BIOCARTA_KERATINOCYTE_PATHWAY	43	0.448416	1.005288	0.477708	0.742175	0.729029	1999	tags=21%	list=13%	signal=18%
BIOCARTA_TCR_PATHWAY	37	0.447939	0.988954	0.477273	0.742175	0.729029	1955	tags=19%	list=12%	signal=17%
REACTOME_SYNTHESIS_OF_BILE_ACIDS_AND_BILE_SALTS	23	0.444155	0.945224	0.478102	0.742175	0.729029	3137	tags=39%	list=20%	signal=31%
WP_MECP2_AND_ASSOCIATED_RETT_SYNDROME	43	-0.37113	-0.93718	0.476998	0.742175	0.729029	1569	tags=19%	list=10%	signal=17%
BIOCARTA_CHEMICAL_PATHWAY	18	-0.40294	-0.93057	0.477801	0.742175	0.729029	4077	tags=39%	list=26%	signal=29%
REACTOME_SEMA4D_IN_SEMAPHORIN_SIGNALING	15	-0.40248	-0.92419	0.479339	0.7434	0.730233	411	tags=47%	list=3%	signal=45%
REACTOME_MOLYBDENUM_COFACTOR_BIOSYNTHESIS	5	-0.55009	-1.0082	0.480885	0.744562	0.731374	846	tags=40%	list=5%	signal=38%
REACTOME_DOWNSTREAM_SIGNALING_OF_ACTIVATED_FGFR2	24	-0.3886	-0.93091	0.480984	0.744562	0.731374	2772	tags=25%	list=18%	signal=21%
REACTOME_SIGNALING_BY_RHO_GTPASES_MIRO_GTPASES_AND_R	600	0.332579	0.991091	0.482119	0.74493	0.731735	1665	tags=13%	list=11%	signal=12%
REACTOME_ACTIVATION_OF_NMDA_RECEPTORS_AND_POSTSYNAP	36	0.443278	0.978751	0.481739	0.74493	0.731735	2031	tags=28%	list=13%	signal=24%
WP_COMPREHENSIVE_IL17A_SIGNALING	88	0.415825	1.011689	0.483516	0.74501	0.731814	101	tags=2%	list=1%	signal=2%
REACTOME_DEVELOPMENTAL_BIOLOGY	324	0.350155	0.993058	0.482955	0.74501	0.731814	1649	tags=15%	list=10%	signal=13%



REACTOME_POSTMITOTIC_NUCLEAR_PORE_COMPLEX_NPC_REFORI	22	0.436257	0.926004	0.483456	0.74501	0.731814	4965	tags=55%	list=32%	signal=37%
BIOCARTA_INFLAM_PATHWAY	8	0.493419	0.961759	0.48503	0.746649	0.733424	3571	tags=62%	list=23%	signal=48%
REACTOME_REGULATION_OF_TP53_DEGRADATION	35	-0.36728	-0.92018	0.486111	0.747621	0.734378	1337	tags=17%	list=9%	signal=16%
REACTOME_INTERLEUKIN_2_FAMILY_SIGNALING	26	0.453984	0.979535	0.487676	0.748071	0.734821	4955	tags=50%	list=32%	signal=34%
REACTOME_HEME_DEGRADATION	8	-0.47869	-0.96331	0.487026	0.748071	0.734821	2152	tags=50%	list=14%	signal=43%
REACTOME_PURINE_RIBONUCLEOSIDE_MONOPHOSPHATE_BIOSYN'	9	-0.45907	-0.94407	0.487755	0.748071	0.734821	2302	tags=44%	list=15%	signal=38%
WP_DOPAMINERGIC_NEUROGENESIS	21	0.447151	0.931893	0.490566	0.751688	0.738374	5991	tags=76%	list=38%	signal=47%
REACTOME_ELECTRIC_TRANSMISSION_ACROSS_GAP_JUNCTIONS	4	0.578262	0.991874	0.492032	0.752546	0.739216	4993	tags=75%	list=32%	signal=51%
WP_IL2_SIGNALING_PATHWAY	73	0.416917	0.990712	0.49183	0.752546	0.739216	2278	tags=19%	list=15%	signal=16%
WP_SPINAL_CORD_INJURY	84	0.406168	0.989091	0.49766	0.75476	0.741391	867	tags=8%	list=6%	signal=8%
REACTOME_ADVANCED_GLYCOSYLATION_ENDPRODUCT_RECEPTOR	5	-0.5388	-0.98751	0.49497	0.75476	0.741391	435	tags=60%	list=3%	signal=58%
WP_ACETYLCHOLINE_SYNTHESIS	6	-0.51881	-0.97843	0.494888	0.75476	0.741391	1565	tags=67%	list=10%	signal=60%
REACTOME_SUMOYLATION_OF_DNA_REPLICATION_PROTEINS	40	0.435932	0.970389	0.497391	0.75476	0.741391	3743	tags=38%	list=24%	signal=29%
REACTOME_METABOLISM_OF_RNA	575	-0.31104	-0.94544	0.498024	0.75476	0.741391	3443	tags=37%	list=22%	signal=30%
BIOCARTA_AKAP13_PATHWAY	9	-0.45603	-0.93783	0.495918	0.75476	0.741391	3395	tags=56%	list=22%	signal=44%
BIOCARTA_IL12_PATHWAY	10	0.478279	0.937751	0.495238	0.75476	0.741391	1955	tags=40%	list=12%	signal=35%
REACTOME_CALCINEURIN_ACTIVATES_NFAT	10	-0.44484	-0.92813	0.496855	0.75476	0.741391	3753	tags=70%	list=24%	signal=53%
WP_PARKINSONS_DISEASE	38	-0.35947	-0.91208	0.49652	0.75476	0.741391	1582	tags=32%	list=10%	signal=28%
REACTOME_NEGATIVE_REGULATION_OF_MET_ACTIVITY	21	-0.38243	-0.90317	0.497881	0.75476	0.741391	2489	tags=38%	list=16%	signal=32%
REACTOME_HSP90_CHAPERONE_CYCLE_FOR_STEROID_HORMONE_	46	0.435294	0.980139	0.501724	0.756371	0.742973	254	tags=4%	list=2%	signal=4%
REACTOME_BILE_ACID_AND_BILE_SALT_METABOLISM	27	0.446258	0.959727	0.5	0.756371	0.742973	4731	tags=56%	list=30%	signal=39%
REACTOME_CARGO_CONCENTRATION_IN_THE_ER	30	0.436472	0.956017	0.501736	0.756371	0.742973	2593	tags=33%	list=17%	signal=28%
REACTOME_RELEASE_OF_APOPTOTIC_FACTORS_FROM_THE_MITOC	7	-0.47836	-0.94864	0.500998	0.756371	0.742973	2643	tags=57%	list=17%	signal=48%
REACTOME_PHOSPHATE_BOND_HYDROLYSIS_BY_NUDT_PROTEINS	7	-0.47829	-0.9485	0.500998	0.756371	0.742973	4949	tags=71%	list=32%	signal=49%
REACTOME_TRANSPORT_OF_NUCLEOSIDES_AND_FREE_PURINE_AN	8	-0.4683	-0.94238	0.502994	0.756371	0.742973	1988	tags=50%	list=13%	signal=44%
REACTOME_ORGANIC_CATION_ANION_ZWITTERION_TRANSPORT	11	0.468626	0.927745	0.501931	0.756371	0.742973	1750	tags=18%	list=11%	signal=10%
REACTOME_PCNA_DEPENDENT_LONG_PATCH_BASE_EXCISION_REP	20	-0.38115	-0.89522	0.503185	0.756371	0.742973	5424	tags=50%	list=35%	signal=33%
REACTOME_LYSOSPHINGOLIPID_AND_LPA_RECEPTORS	14	-0.39154	-0.88475	0.503055	0.756371	0.742973	515	tags=14%	list=3%	signal=14%
BIOCARTA_VDR_PATHWAY	21	0.440341	0.917702	0.503774	0.756571	0.74317	1594	tags=24%	list=10%	signal=10%
BIOCARTA_INTEGRIN_PATHWAY	33	0.433175	0.955271	0.504348	0.75675	0.743345	1955	tags=27%	list=12%	signal=24%
REACTOME_SUMOYLATION_OF_RNA_BINDING_PROTEINS	44	0.43294	0.973271	0.511036	0.757208	0.743796	4965	tags=55%	list=32%	signal=37%
BIOCARTA_FCR1_PATHWAY	36	0.430065	0.949578	0.507826	0.757208	0.743796	1955	tags=17%	list=12%	signal=15%
REACTOME_TRAFFICKING_OF_AMPA_RECEPTORS	29	0.435763	0.947389	0.510417	0.757208	0.743796	1458	tags=21%	list=9%	signal=19%
REACTOME_MAPK3_ERK1_ACTIVATION	8	0.483394	0.942218	0.510978	0.757208	0.743796	751	tags=25%	list=5%	signal=24%
WP_GLUTATHIONE_AND_ONECARBON_METABOLISM	28	0.435094	0.941809	0.506087	0.757208	0.743796	1187	tags=11%	list=8%	signal=10%
REACTOME_CONDENSATION_OF_PROMETAPHASE_CHROMOSOMES	8	0.482695	0.940856	0.510978	0.757208	0.743796	3103	tags=38%	list=20%	signal=30%
REACTOME_HDMS_DEMETHYLATE_HISTONES	28	0.432663	0.936547	0.506087	0.757208	0.743796	1173	tags=14%	list=7%	signal=13%
REACTOME_ESTABLISHMENT_OF_SISTER_CHROMATID_COHESION	10	0.472737	0.926885	0.506667	0.757208	0.743796	3140	tags=40%	list=20%	signal=20%
REACTOME_AFLATOXIN_ACTIVATION_AND_DETOXIFICATION	8	-0.46042	-0.92654	0.510978	0.757208	0.743796	1694	tags=38%	list=11%	signal=33%
REACTOME DISSOLUTION_OF_FIBRIN_CLOT	9	-0.44977	-0.92495	0.506122	0.757208	0.743796	3245	tags=44%	list=21%	signal=35%
REACTOME_FORMATION_OF_APOPTOSOME	9	-0.44844	-0.92221	0.508163	0.757208	0.743796	2834	tags=44%	list=18%	signal=36%
REACTOME_NEUROTRANSMITTER_RELEASE_CYCLE	50	-0.34973	-0.90111	0.509662	0.757208	0.743796	1851	tags=22%	list=12%	signal=19%
BIOCARTA_NKT_PATHWAY	14	0.43881	0.893882	0.510763	0.757208	0.743796	3149	tags=36%	list=20%	signal=29%
REACTOME_ER_PHAGOSOME_PATHWAY	20	-0.37983	-0.89214	0.507431	0.757208	0.743796	835	tags=20%	list=5%	signal=19%
REACTOME_MRNA_EDITING	4	-0.56508	-0.98606	0.526946	0.7589	0.745458	5865	tags=75%	list=37%	signal=47%
REACTOME_TACHYKININ_RECEPTORS_BIND_TACHYKININS	4	0.569509	0.976861	0.51992	0.7589	0.745458	5771	tags=75%	list=37%	signal=47%
REACTOME_SIGNALING_BY_MST1	4	0.56576	0.97043	0.527888	0.7589	0.745458	6822	tags=100%	list=43%	signal=57%
REACTOME_ERYTHROCYTES_TAKE_UP_OXYGEN_AND_RELEASE_CAF	6	-0.51113	-0.96395	0.515337	0.7589	0.745458	675	tags=33%	list=4%	signal=32%
REACTOME_CHYLOMICRON_ASSEMBLY	5	0.537566	0.963157	0.514851	0.7589	0.745458	2776	tags=40%	list=18%	signal=33%
REACTOME_REGULATION_OF_MRNA_STABILITY_BY_PROTEINS_THA	82	0.392387	0.947837	0.526899	0.7589	0.745458	159	tags=2%	list=1%	signal=2%
BIOCARTA_BCR_PATHWAY	31	0.42762	0.939929	0.519164	0.7589	0.745458	1955	tags=16%	list=12%	signal=14%
REACTOME_NCAM_SIGNALING_FOR_NEURITE_OUT_GROWTH	34	0.424335	0.935118	0.526224	0.7589	0.745458	2787	tags=26%	list=18%	signal=22%
BIOCARTA_STAT3_PATHWAY	8	0.478161	0.932019	0.51497	0.7589	0.745458	4464	tags=50%	list=28%	signal=36%
BIOCARTA_CDC25_PATHWAY	8	0.475828	0.927471	0.516966	0.7589	0.745458	349	tags=12%	list=2%	signal=12%
BIOCARTA_PYK2_PATHWAY	25	0.430094	0.924797	0.515901	0.7589	0.745458	178	tags=4%	list=1%	signal=4%
REACTOME_CYTOTOXIC_C_MEDIATED_APOPTOTIC_RESPONSE	11	-0.42686	-0.91326	0.520661	0.7589	0.745458	2834	tags=36%	list=18%	signal=30%
REACTOME_SIGNALING_BY_THE_B_CELL_RECEPTOR_BCR	99	-0.33698	-0.90917	0.516575	0.7589	0.745458	2063	tags=31%	list=13%	signal=27%
REACTOME_INTERLEUKIN_12_FAMILY_SIGNALING	10	0.462621	0.907051	0.527619	0.7589	0.745458	5115	tags=60%	list=33%	signal=40%
BIOCARTA_RAB_PATHWAY	11	-0.42384	-0.9068	0.524793	0.7589	0.745458	2750	tags=55%	list=18%	signal=45%
REACTOME_THE_NLRP3_INFLAMMASOME	9	-0.43881	-0.90241	0.526531	0.7589	0.745458	3003	tags=44%	list=19%	signal=36%
REACTOME_ACTIVATION_OF_THE_AP_1_FAMILY_OF_TRANSCRIPTIC	10	-0.43237	-0.9021	0.522013	0.7589	0.745458	3539	tags=90%	list=23%	signal=70%
REACTOME_SERINE_BIOSYNTHESIS	9	-0.43848	-0.90173	0.526531	0.7589	0.745458	2477	tags=44%	list=16%	signal=37%
WP_OSTEOCLAST_SIGNALING	11	0.453801	0.898397	0.519305	0.7589	0.745458	2967	tags=36%	list=19%	signal=30%
REACTOME_NUCLEAR_SIGNALING_BY_ERBB4	11	0.452918	0.896649	0.523166	0.7589	0.745458	3746	tags=45%	list=24%	signal=35%
BIOCARTA_SPRY_PATHWAY	16	0.439522	0.895187	0.523166	0.7589	0.745458	2152	tags=31%	list=14%	signal=27%
REACTOME_EPHRIN_SIGNALING	18	0.436308	0.894663	0.52741	0.7589	0.745458	1313	tags=22%	list=8%	signal=20%
REACTOME METHYLATION	12	-0.4139	-0.89302	0.521649	0.7589	0.745458	4286	tags=58%	list=27%	signal=42%
REACTOME_ADRENAJUNE_NORADRENALINE_INHIBITS_INSULIN_SEC	21	0.427837	0.891642	0.526415	0.7589	0.745458	542	tags=14%	list=3%	signal=14%
REACTOME_HEDGEHOG_OFF_STATE	102	-0.33069	-0.88848	0.522857	0.7589	0.745458	2063	tags=36%	list=13%	signal=32%
BIOCARTA_IL7_PATHWAY	15	0.434444	0.887127	0.527027	0.7589	0.745458	1263	tags=20%	list=8%	signal=18%
REACTOME_PHASE_II_CONJUGATION_OF_COMPOUNDS	64	-0.33837	-0.88365	0.519802	0.7589	0.745458	3137	tags=39%	list=20%	signal=31%
REACTOME_GLUTAMATE_NEUROTRANSMITTER_RELEASE_CYCLE	23	-0.36995	-0.88272	0.517621	0.7589	0.745458	1851	tags=30%	list=12%	signal=23%
BIOCARTA_MEF2D_PATHWAY	15	-0.38389	-0.8815	0.520661	0.7589	0.745458	4077	tags=47%	list=26%	signal=35%
REACTOME_INITIATION_OF_NUCLEAR_ENVELOPE_NE_REFORMATIC	17	-0.38084	-0.87894	0.513514	0.7589	0.745458	2299	tags=35%	list=15%	signal=30%
REACTOME_SYNTHESIS_OF_BILE_ACIDS_AND_BILE_SALTS_VIA_7ALF	14	0.431432	0.878851	0.518591	0.7589	0.745458	4731	tags=50%	list=30%	signal=35%
REACTOME_CARGO_TRAFFICKING_TO_THE_PERICILIARY_MEMBRAN	39	-0.34945	-0.87725	0.527316	0.7589	0.745458	1480	tags=18%	list=9%	signal=16%
REACTOME_DDX58_IFIH1_MEDIATED_INDUCION_OF_INTERFERON	33	-0.3516	-0.87135	0.512881	0.7589	0.745458	2489	tags=30%	list=16%	signal=26%
WP_HYPOXIADEPENDENT_PROLIFERATION_OF_MYOBlasts	14	-0.3847	-0.86928	0.519348	0.7589	0.745458	2100	tags=21%	list=13%	signal=19%
REACTOME_ACTIVATION_OF_KAINATE_RECEPTORS_UPON GLUTAM	30	-0.34157	-0.85751	0.528169	0.7589	0.745458	3520	tags=67%	list=22%	signal=52%
BIOCARTA_PTEN_PATHWAY	16	0.435344	0.886679	0.528958	0.759376	0.745926	2223	tags=31%	list=14%	signal=27%
BIOCARTA_TGFB_PATHWAY	17	0.432875	0.880452	0.52975	0.759858	0.746399	3375	tags=41%	list=21%	signal=32%
REACTOME_G2_PHASE	5	0.529348	0.948432	0.534653	0.765582	0.752022	5962	tags=80%	list=38%	signal=50%
REACTOME ASPARTATE AND ASPARAGINE METABOLISM	11	-0.4116	-0.88061	0.535124	0.765582	0.752022	2821	tags=36%	list=18%	signal=30%
REACTOME_TGF_BETA_RECEPTOR_SIGNALING_IN_EMT_EPITHELIAL	15	-0.37639	-0.86428	0.535124	0.765582	0.752022	1596	tags=33%	list=10%	signal=30%
REACTOME_FORMATION_OF_RNA_POL_II_ELONGATION_COMPLEX	54	-0.34273	-0.88384	0.536232	0.766507	0.75293	1863	tags=20%	list=12%	signal=18%
REACTOME_MIRO_GTPASE_CYCLE	7	-0.46176	-0.91573	0.536926	0.766839	0.753257	1234	tags=43%	list=8%	signal=40%
WP_MIR222_IN_EXERCISEINDUCED_CARDIAC_GROWTH	7	-0.55777	-0.97331	0.538922	0.768369	0.754759	224	tags=50%	list=1%	signal=49%
WP_DYSREGULATED_MIRNA_TARGETING_IN_INSULINPI3KAKT_SIGN	26	0.421039	0.908451	0.538732	0.768369	0.754759	2010	tags=23%	list=13%	signal=20%
WP_NOVEL_JUNDMPI1_PATHWAY	24	-0.36656	-0.87812	0.541387	0.771221	0.757561	3898	tags=46%	list=25%	signal=35%
REACTOME_REGULATION_OF_IFNG_SIGNALING	8	0.461935	0.900392	0.542914	0.772072	0.758397	5144	tags=50%	list=33%	signal=34%



WP_LEPTIN_AND_ADIPONECTIN	8	0.461924	0.900371	0.542914	0.772072	0.758397	427	tags=12%	list=3%	signal=12%
BIOCARTA_CK1_PATHWAY	15	-0.37302	-0.85653	0.543388	0.772086	0.75841	2610	tags=40%	list=17%	signal=33%
REACTOME_PHASE_3_RAPID_REPOLARISATION	6	0.509399	0.940392	0.545809	0.772288	0.75919	4276	tags=50%	list=27%	signal=36%
REACTOME_PROCESSING_OF_CAPPED_INTRONLESS_PRE_MRNA	29	0.41481	0.901836	0.545139	0.772288	0.75919	4098	tags=34%	list=26%	signal=26%
REACTOME_COPII_MEDIATED_VESICLE_TRANSPORT	65	-0.32794	-0.86053	0.544554	0.772288	0.75919	2880	tags=29%	list=18%	signal=24%
REACTOME_TELOMERE_EXTENSION_BY_TELOMERASE	20	-0.36372	-0.85429	0.545648	0.772288	0.75919	2134	tags=35%	list=14%	signal=30%
WP_HYPOXIADEPENDENT_DIFFERENTIATION_OF_MYOBlasts	10	0.447684	0.877763	0.546667	0.773436	0.759736	124	tags=10%	list=1%	signal=10%
REACTOME_RHO_GTPASES_ACTIVATE_ROCKS	5	-0.50616	-0.92767	0.547284	0.77365	0.759946	3395	tags=80%	list=22%	signal=63%
BIOCARTA_NO2IL12_PATHWAY	6	0.508704	0.939108	0.547758	0.773662	0.759958	4464	tags=67%	list=28%	signal=48%
WP_HYPOXIADEPENDENT_SELFRENEWAL_OF_MYOBlasts	9	0.454115	0.884399	0.548828	0.774514	0.760796	465	tags=22%	list=3%	signal=22%
REACTOME_PI_METABOLISM	74	0.393785	0.938361	0.552674	0.775782	0.76204	4441	tags=38%	list=28%	signal=27%
BIOCARTA_ALTERNATIVE_PATHWAY	5	0.521668	0.934673	0.552475	0.775782	0.76204	1121	tags=20%	list=7%	signal=19%
REACTOME_STING_MEDIATED_INDUCION_OF_HOST_IMMUNE_RE	6	0.50347	0.929446	0.551657	0.775782	0.76204	724	tags=33%	list=5%	signal=32%
REACTOME_ACETYLCHOLINE_BINDING_AND_DOWNSTREAM_EVENT	8	0.454041	0.885006	0.552894	0.775782	0.76204	6221	tags=50%	list=40%	signal=30%
REACTOME_HIGHLY_CALCIUM_PERMEABLE_POSTSYNAPTIC_NICOTI	8	0.454041	0.885006	0.552894	0.775782	0.76204	6221	tags=50%	list=40%	signal=30%
REACTOME_INFLAMMASOMES	12	-0.40054	-0.86421	0.552577	0.775782	0.76204	3003	tags=33%	list=19%	signal=27%
REACTOME_NUCLEAR_EVENTS_KINASE_AND_TRANSCRIPTION_FACT	27	-0.34843	-0.85636	0.552995	0.775782	0.76204	4097	tags=52%	list=26%	signal=38%
REACTOME_MET_RECEPTOR_ACTIVATION	5	0.520478	0.93254	0.554455	0.777173	0.763407	6308	tags=80%	list=40%	signal=48%
REACTOME_RMTS METHYLATE HISTONE ARGININES	37	-0.33678	-0.85455	0.555814	0.778421	0.764633	3340	tags=46%	list=21%	signal=36%
REACTOME_SUMOYLATION_OF_UBIQUITINYLYATION_PROTEINS	36	0.412444	0.91067	0.556522	0.778755	0.764961	4965	tags=50%	list=32%	signal=34%
REACTOME_PL_3K_CASCADE_FGFR1	17	-0.36233	-0.83622	0.559252	0.781917	0.768067	2772	tags=29%	list=18%	signal=24%
REACTOME_EXTRINSIC_PATHWAY_OF_FIBRIN_CLOT_FORMATION	3	0.596812	0.962617	0.559921	0.782195	0.76834	1587	tags=33%	list=10%	signal=30%
REACTOME_SYNTHESIS_OF_15_EICOSATETRAENOIC_ACID_DERIVAT	4	-0.53038	-0.92553	0.560878	0.782216	0.76836	2697	tags=50%	list=17%	signal=41%
REACTOME_TELOMERE_C_STRAND_LAGGING_STRAND_SYNTHESIS	31	-0.33317	-0.838	0.560748	0.782216	0.76836	4509	tags=45%	list=29%	signal=32%
REACTOME_FACTORS_INVOLVED_IN_MEGAKARYOCYTE_DEVELOPM	104	-0.32218	-0.86843	0.5625	0.783162	0.76929	1786	tags=23%	list=11%	signal=21%
WP_MITOCHONDRIAL_GENE_EXPRESSION	19	0.404407	0.842637	0.562152	0.783162	0.76929	4204	tags=47%	list=27%	signal=35%
REACTOME_POLYMERASE_SWITCHING_ON_THE_C_STRAND_OF_TH	24	-0.36013	-0.86273	0.563758	0.784152	0.770262	4509	tags=46%	list=29%	signal=33%
REACTOME_SHC_MEDIATED_CASCADE_FGFR3	14	-0.37024	-0.83661	0.564155	0.784152	0.770262	377	tags=21%	list=2%	signal=21%
REACTOME_LIPID_PARTICLE_ORGANIZATION	3	0.595911	0.961164	0.565815	0.785012	0.771107	6348	tags=100%	list=40%	signal=41%
REACTOME_SHC_MEDIATED_CASCADE_FGFR1	16	-0.36633	-0.84749	0.566116	0.785012	0.771107	377	tags=25%	list=2%	signal=24%
BIOCARTA_CDMAC_PATHWAY	14	-0.36982	-0.83568	0.566191	0.785012	0.771107	4077	tags=43%	list=26%	signal=32%
REACTOME_TRANS_GOLGI_NETWORK_VESICLE_BUDDING	70	-0.32564	-0.8509	0.566751	0.785132	0.771225	3049	tags=34%	list=19%	signal=28%
REACTOME_CDC42_GTPASE_CYCLE	93	0.375801	0.923606	0.569207	0.785876	0.771955	1722	tags=22%	list=11%	signal=19%
REACTOME_GENE_SILENCING_BY_RNA	40	0.403764	0.898783	0.568696	0.785876	0.771955	3743	tags=38%	list=24%	signal=29%
REACTOME_TRIF_MEDIATED_PROGRAMMED_CELL_DEATH	9	0.441085	0.859023	0.570313	0.785876	0.771955	3865	tags=44%	list=25%	signal=34%
REACTOME_METABOLISM_OF_FOLATE_AND_PTERINES	16	-0.36399	-0.84208	0.568182	0.785876	0.771955	4217	tags=56%	list=27%	signal=41%
REACTOME_HYALURONAN_UPTAKE_AND_DEGRADATION	12	0.415731	0.837803	0.5706	0.785876	0.771955	5254	tags=58%	list=33%	signal=39%
REACTOME_DEPOLYMERISATION_OF_THE_NUCLEAR_LAMINA	12	0.415646	0.83763	0.5706	0.785876	0.771955	279	tags=8%	list=2%	signal=8%
REACTOME_SIGNALING_BY_ERBB4	31	-0.32718	-0.82294	0.570093	0.785876	0.771955	2526	tags=23%	list=16%	signal=19%
REACTOME_INTERLEUKIN_35_SIGNALLING	6	0.49336	0.910783	0.57115	0.785982	0.77206	5115	tags=67%	list=33%	signal=45%
REACTOME_REGULATION_OF_FOXO_TRANSCRIPTIONAL_ACTIVITY_I	6	0.491346	0.907064	0.573099	0.786709	0.772774	2223	tags=50%	list=14%	signal=43%
REACTOME_REGULATION_OF_CYTOSKELETAL_REMODELING_AND_C	8	-0.43242	-0.87019	0.572854	0.786709	0.772774	933	tags=38%	list=6%	signal=35%
REACTOME_SMALL_INTERFERING_RNA_SIRNA_BIOGENESIS	8	0.444776	0.866946	0.572854	0.786709	0.772774	1940	tags=38%	list=12%	signal=33%
REACTOME_HIGHLY_SODIUM_PERMEABLE_POSTSYNAPTIC_ACETYL	3	0.587554	0.947684	0.575639	0.787754	0.773801	5030	tags=67%	list=32%	signal=45%
WP_P53_SIGNALING	62	0.390847	0.907026	0.575758	0.787754	0.773801	876	tags=10%	list=6%	signal=9%
WP_SELENIUM_METABOLISM_SELENOPROTEINS	42	-0.33768	-0.8513	0.574519	0.787754	0.773801	3599	tags=40%	list=23%	signal=31%
REACTOME_ACTIVATED_TAK1_MEDIATES_P38_MAPK_ACTIVATION	23	-0.34796	-0.83026	0.57489	0.787754	0.773801	2489	tags=26%	list=16%	signal=22%
REACTOME_PTK6_REGULATES_RHO_GTPASES_RAS_GTPASE_AND_A	12	-0.38633	-0.83354	0.57732	0.788592	0.774624	3655	tags=50%	list=23%	signal=38%
REACTOME_NEGATIVE_REGULATION_OF_FLT3	14	0.40314	0.821219	0.577299	0.788592	0.774624	521	tags=21%	list=3%	signal=21%
REACTOME_HIGHLY_CALCIUM_PERMEABLE_NICOTINIC_ACETYLCHO	7	0.427299	0.896633	0.578842	0.788739	0.774769	6221	tags=57%	list=40%	signal=35%
REACTOME_STRIATED_MUSCLE_CONTRACTION	29	0.395443	0.85973	0.578125	0.788739	0.774769	1153	tags=14%	list=7%	signal=13%
REACTOME_SIGNALING_BY_EGFR	42	-0.33509	-0.84478	0.579327	0.788739	0.774769	2004	tags=26%	list=13%	signal=23%
REACTOME_DNA_STRAND_ELONGATION	23	-0.34549	-0.82437	0.579295	0.788739	0.774769	4509	tags=52%	list=29%	signal=37%
REACTOME_TRANSPORT_OF_VITAMINS_NUCLEOSIDES_AND_RELAT	33	0.393631	0.868065	0.58087	0.790192	0.776195	4141	tags=52%	list=26%	signal=38%
REACTOME_PHOSPHOLIPASE_C_MEDIATED_CASCADE_FGFR2	13	-0.37876	-0.83877	0.582305	0.791496	0.777476	2772	tags=23%	list=18%	signal=19%
BIOCARTA_CBL_PATHWAY	11	0.412769	0.817165	0.583012	0.791809	0.777784	2306	tags=36%	list=15%	signal=31%
REACTOME_CHYLOMICRON_REMODELING	3	0.582264	0.939152	0.583497	0.791821	0.777795	5969	tags=67%	list=38%	signal=41%
BIOCARTA_ERK_PATHWAY	25	-0.35067	-0.84032	0.584862	0.793026	0.778979	377	tags=16%	list=2%	signal=16%
WP_ETHANOL_METABOLISM_RESULTING_IN_PRODUCTION_OF_RO	9	0.431645	0.840638	0.585938	0.793835	0.779774	2134	tags=33%	list=14%	signal=29%
BIOCARTA_ATIR_PATHWAY	25	0.384156	0.826021	0.586572	0.794048	0.779983	178	tags=4%	list=1%	signal=4%
REACTOME_RHOH_GTPASE_CYCLE	40	0.391935	0.872451	0.587826	0.79445	0.780378	2278	tags=25%	list=15%	signal=21%
REACTOME_RUNK1_INTERACTS_WITH_CO_FACTORS_WHOSE_PREC	35	0.394422	0.869383	0.587719	0.79445	0.780378	1586	tags=20%	list=10%	signal=18%
WP_CYTOKINES_AND_INFLAMMATORY_RESPONSE	8	0.43323	0.844441	0.588822	0.79515	0.781065	3571	tags=50%	list=23%	signal=39%
REACTOME_RHOB_GTPASE_CYCLE	68	0.386724	0.907666	0.590381	0.795719	0.781624	2334	tags=26%	list=15%	signal=23%
WP_MIRNAS_AND_TFS_IN_IPS_CELL_GENERATION	6	-0.47183	-0.88982	0.591002	0.795719	0.781624	2277	tags=67%	list=14%	signal=57%
REACTOME_AMPLIFICATION_OF_SIGNAL_FROM_THE_KINETOCHOR	89	-0.31378	-0.84466	0.59116	0.795719	0.781624	2866	tags=39%	list=18%	signal=32%
REACTOME_DEADENYLATION_OF_MRNA	25	0.382158	0.821724	0.590106	0.795719	0.781624	2629	tags=28%	list=17%	signal=23%
REACTOME_DEATH_RECEPTOR_SIGNALING	137	0.357556	0.922507	0.596037	0.797293	0.78317	1704	tags=15%	list=11%	signal=13%
REACTOME_PTK6_REGULATES_PROTEINS_INVOLVED_IN_RNA_PROC	4	0.52583	0.901939	0.59761	0.797293	0.78317	337	tags=25%	list=2%	signal=24%
REACTOME_ACTIVATION_OF_CASPASES_THROUGH_APOPTOSOME	6	-0.47011	-0.88658	0.595092	0.797293	0.78317	2684	tags=50%	list=17%	signal=41%
REACTOME_AUF1_HNRNP_D0_BINDS_AND_DESTABILIZES_MRNA	54	0.385846	0.886063	0.596939	0.797293	0.78317	43	tags=2%	list=0%	signal=2%
REACTOME_UB_SPECIFIC_PROCESSING_PROTEASES	159	-0.31694	-0.86207	0.59403	0.797293	0.78317	3105	tags=32%	list=20%	signal=26%
REACTOME_HEME_SIGNALING	8	0.430585	0.839285	0.59481	0.797293	0.78317	483	tags=12%	list=3%	signal=12%
WP_EUKARYOTIC_TRANSCRIPTION_INITIATION	40	-0.32599	-0.82396	0.59719	0.797293	0.78317	3458	tags=32%	list=22%	signal=25%
REACTOME_RHOBTB2_GTPASE_CYCLE	22	-0.3483	-0.82002	0.59607	0.797293	0.78317	1607	tags=32%	list=10%	signal=29%
REACTOME_CHK1_CHK2_CD51_MEDIATED_INACTIVATION_OF_CYCL	12	-0.37881	-0.81733	0.593814	0.797293	0.78317	2365	tags=50%	list=15%	signal=43%
REACTOME_RAP1_SIGNALLING	15	0.393962	0.804462	0.596525	0.797293	0.78317	690	tags=13%	list=4%	signal=13%
BIOCARTA_HER2_PATHWAY	22	0.374153	0.794181	0.597426	0.797293	0.78317	4553	tags=45%	list=29%	signal=32%
REACTOME_G_ALPHA_12_13_SIGNALLING_EVENTS	74	0.37956	0.904464	0.599676	0.798437	0.784294	841	tags=9%	list=5%	signal=9%
REACTOME_CELLULAR_RESPONSE_TO_HYPOXIA	68	0.381875	0.896283	0.600332	0.798437	0.784294	23	tags=1%	list=0%	signal=1%
REACTOME_NGF_STIMULATED_TRANSCRIPTION	6	0.474099	0.875225	0.60039	0.798437	0.784294	1295	tags=33%	list=8%	signal=31%
WP_TRIACYLGLYCERIDE_SYNTHESIS	18	0.394938	0.809833	0.599244	0.798437	0.784294	5807	tags=50%	list=37%	signal=32%
REACTOME_ELASTIC_FIBRE_FORMATION	34	0.380867	0.839326	0.601399	0.799138	0.784983	2101	tags=35%	list=13%	signal=31%
REACTOME_TRANSFERRIN_ENDOCYTOSIS_AND_RECYCLING	27	0.381586	0.820642	0.602113	0.799448	0.785287	1147	tags=15%	list=7%	signal=14%
BIOCARTA_EPO_PATHWAY	19	-0.35049	-0.81286	0.604752	0.80231	0.788099	3558	tags=37%	list=23%	signal=29%
REACTOME_CHOLINE_CATABOLISM	4	-0.50707	-0.88485	0.606786	0.803751	0.789514	1522	tags=50%	list=10%	signal=45%
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_ADDITIONAL_CI	18	0.391384	0.802545	0.606805	0.803751	0.789514	1842	tags=28%	list=12%	signal=25%
REACTOME_RAF_INDEPENDENT_MAPK1_3_ACTIVATION	21	-0.34227	-0.80833	0.608051	0.804759	0.790504	1876	tags=33%	list=12%	signal=29%
REACTOME_SYNTHESIS_OF_VERY_LONG_CHAIN_FATTY_ACYL_COAS	18	-0.35304	-0.81532	0.608879	0.805214	0.790951	654	tags=11%	list=4%	signal=11%
REACTOME_METABOLISM_OF_LIPIDS	484	0.320143	0.935902	0.614227	0.805385	0.791119	556	tags=4%	list=4%	signal=4%



BIOCARTA_CREM_PATHWAY	3	0.555543	0.896053	0.612967	0.805385	0.791119	483 tags=33%	list=3%	signal=32%
REACTOME_RAC2_GTPASE_CYCLE	85	0.365002	0.891055	0.613354	0.805385	0.791119	3108 tags=29%	list=20%	signal=24%
REACTOME_NUCLEAR_ENVELOPE_BREAKDOWN	45	0.384101	0.862407	0.610922	0.805385	0.791119	3743 tags=33%	list=24%	signal=25%
REACTOME_PTK6_REGULATES_CELL_CYCLE	5	-0.46728	-0.85642	0.61167	0.805385	0.791119	234 tags=40%	list=1%	signal=39%
REACTOME_REELIN_SIGNALLING_PATHWAY	5	-0.46633	-0.85469	0.613682	0.805385	0.791119	1397 tags=60%	list=9%	signal=55%
REACTOME_CELL_CELL_JUNCTION_ORGANIZATION	39	0.37647	0.841042	0.611015	0.805385	0.791119	2053 tags=31%	list=13%	signal=27%
REACTOME_DCC_MEDIATED_ATTRACTIVE_SIGNALING	9	-0.40571	-0.83435	0.612245	0.805385	0.791119	2708 tags=44%	list=17%	signal=37%
BIOCARTA_EPHA4_PATHWAY	8	0.418435	0.815603	0.61477	0.805385	0.791119	1913 tags=38%	list=12%	signal=33%
REACTOME_POLB_DEPENDENT_LONG_PATCH_BASE_EXCISION_REP.	8	0.417946	0.81465	0.616766	0.805385	0.791119	476 tags=12%	list=3%	signal=12%
WP_GPCR5_CLASS_C_METABOTROPIC GLUTAMATE_PHEROMONE	13	-0.36729	-0.81339	0.611111	0.805385	0.791119	795 tags=15%	list=5%	signal=15%
REACTOME_DOWNREGULATION_OF_SMAD2_3_SMAD4_TRANSCRIF	22	-0.34269	-0.80681	0.611354	0.805385	0.791119	2834 tags=23%	list=18%	signal=19%
REACTOME_PROCESSIVE_SYNTHESIS_ON_THE_C_STRAND_OF_THE	17	-0.34805	-0.80326	0.615385	0.805385	0.791119	4509 tags=53%	list=29%	signal=38%
REACTOME_PEPTIDE_HORMONE_METABOLISM	36	-0.31603	-0.79648	0.615925	0.805385	0.791119	154 tags=11%	list=1%	signal=11%
WP_SEROTONIN_AND_ANXIETYRELATED_EVENTS	12	0.394004	0.794016	0.615087	0.805385	0.791119	2767 tags=33%	list=18%	signal=27%
BIOCARTA_IL2_PATHWAY	21	-0.33501	-0.79118	0.616525	0.805385	0.791119	3558 tags=33%	list=23%	signal=26%
REACTOME_FERTILIZATION	10	0.404957	0.79399	0.619048	0.807728	0.793421	5984 tags=70%	list=38%	signal=43%
REACTOME_DIGESTION	5	-0.46243	-0.84754	0.62173	0.808055	0.793742	4367 tags=60%	list=28%	signal=43%
REACTOME_RHOH_GTPASE_CYCLE	39	0.373772	0.835016	0.621343	0.808055	0.793742	2466 tags=28%	list=16%	signal=24%
REACTOME_RHOBTB3_ATPASE_CYCLE	10	-0.39853	-0.83151	0.620545	0.808055	0.793742	3893 tags=50%	list=25%	signal=38%
REACTOME_SYNTHESIS_OF_PYROPHOSPHATES_IN_THE_CYTOSOL	10	0.404902	0.793882	0.620952	0.808055	0.793742	1328 tags=20%	list=8%	signal=18%
REACTOME_SYNTHESIS_OF_GLYCOSYLPHOSPHATIDYLINOSITOL_GPI	17	0.389027	0.791266	0.619962	0.808055	0.793742	2147 tags=24%	list=14%	signal=20%
WP_BDNF_PATHWAY	14	0.384828	0.783916	0.622309	0.808175	0.79386	1518 tags=21%	list=10%	signal=19%
REACTOME_RUNX2_REGULATES_BONE_DEVELOPMENT	6	0.457772	0.845084	0.623782	0.809447	0.795109	4115 tags=50%	list=26%	signal=26%
REACTOME_BH3_ONLY_PROTEINS_ASSOCIATE_WITH_AND_INACTIV	7	0.437345	0.829045	0.62475	0.809447	0.795109	1557 tags=14%	list=10%	signal=13%
REACTOME_POST_TRANSCRIPTIONAL_SILENCING_BY_SMALL_RNAS	7	0.437041	0.828469	0.62475	0.809447	0.795109	1733 tags=29%	list=11%	signal=25%
REACTOME_POLYMERASE_SWITCHING	14	-0.34766	-0.7856	0.625255	0.809468	0.79513	5424 tags=57%	list=35%	signal=37%
REACTOME_INTERLEUKIN_23_SIGNALING	5	0.479036	0.85829	0.625743	0.809469	0.795131	751 tags=20%	list=5%	signal=19%
REACTOME_TRANSPORT_OF_MATURE_TRANSCRIPT_TO_CYTOPLAS	75	0.36766	0.875943	0.626623	0.809483	0.795145	4485 tags=39%	list=29%	signal=28%
REACTOME_EGFR_DOWNREGULATION	27	-0.32011	-0.78676	0.626728	0.809483	0.795145	2489 tags=30%	list=16%	signal=16%
REACTOME_INNATE_IMMUNE_SYSTEM	748	0.309058	0.935453	0.628719	0.810354	0.796	1163 tags=6%	list=7%	signal=6%
REACTOME_O_GLYCOSYLATION_OF_TSR_DOMAIN_CONTAINING_PF	38	0.361995	0.804237	0.628722	0.810354	0.796	1761 tags=21%	list=11%	signal=19%
BIOCARTA_RANBP2_PATHWAY	12	-0.36723	-0.79233	0.628866	0.810354	0.796	1971 tags=33%	list=13%	signal=23%
REACTOME_SUMOYLATION_OF_TRANSCRIPTION_COFACTORS	38	0.360134	0.800101	0.630473	0.811795	0.797416	4965 tags=58%	list=32%	signal=40%
BIOCARTA_LIS1_PATHWAY	14	-0.34604	-0.78194	0.631365	0.812313	0.797925	4025 tags=50%	list=26%	signal=37%
REACTOME_DNA_DOUBLE_STRAND_BREAK_REPAIR	134	-0.30739	-0.82585	0.632948	0.812536	0.798143	2489 tags=16%	list=16%	signal=14%
REACTOME_HUR_ELAVL1_BINDS_AND_STABILIZES_MRNA	7	0.435403	0.825365	0.632735	0.812536	0.798143	1967 tags=29%	list=13%	signal=25%
REACTOME_INTERLEUKIN_17_SIGNALING	58	-0.31183	-0.80636	0.633005	0.812536	0.798143	4174 tags=47%	list=27%	signal=34%
REACTOME_SMOOTH_MUSCLE_CONTRACTION	30	0.360851	0.790382	0.635417	0.815002	0.800566	1818 tags=17%	list=12%	signal=15%
REACTOME_NERVOUS_SYSTEM_DEVELOPMENT	254	0.327453	0.901803	0.638767	0.815479	0.801034	2710 tags=24%	list=17%	signal=20%
BIOCARTA_MAPK_PATHWAY	7	0.364748	0.868668	0.638574	0.815479	0.801034	2123 tags=25%	list=14%	signal=22%
REACTOME_APEX1_INDEPENDENT_RESOLUTION_OF_AP_SITES_VIA	76	0.432486	0.819835	0.638723	0.815479	0.801034	5631 tags=57%	list=36%	signal=37%
REACTOME_GRB2_EVENTS_IN_ERBB2_SIGNALING	9	-0.39369	-0.80962	0.638776	0.815479	0.801034	377 tags=22%	list=2%	signal=22%
REACTOME_PI3K_AKT_ACTIVATION	8	0.411274	0.801644	0.638723	0.815479	0.801034	3601 tags=38%	list=23%	signal=29%
REACTOME_SIGNALING_BY_PTK6	44	-0.31429	-0.79836	0.639225	0.815479	0.801034	2825 tags=36%	list=18%	signal=30%
REACTOME_SIGNALING_BY_NOTCH3	19	0.367086	0.764874	0.636364	0.815479	0.801034	1487 tags=32%	list=9%	signal=29%
REACTOME_CELL_CELL_COMMUNICATION	76	0.363759	0.866312	0.640194	0.816088	0.801633	2279 tags=29%	list=15%	signal=25%
REACTOME_VITAMIN_D_CALCIFEROL_METABOLISM	3	0.542217	0.87456	0.644401	0.816569	0.802105	6202 tags=67%	list=39%	signal=40%
REACTOME_RHOC_GTPASE_CYCLE	71	0.358299	0.849955	0.648208	0.816569	0.802105	2334 tags=27%	list=15%	signal=23%
REACTOME_REGULATION_OF_TNFR1_SIGNALING	47	0.370286	0.838209	0.646552	0.816569	0.802105	426 tags=9%	list=3%	signal=8%
REACTOME_TNFR1_MEDIATED_CERAMIDE_PRODUCTION	5	-0.44988	-0.82454	0.645875	0.816569	0.802105	406 tags=40%	list=3%	signal=39%
REACTOME_SHC1_EVENTS_IN_EGFR_SIGNALING	9	-0.39136	-0.80482	0.644898	0.816569	0.802105	377 tags=22%	list=2%	signal=22%
REACTOME_RNA_POLYMERASE_II_PRE_TRANSCRIPTION_EVENTS	75	-0.30175	-0.79738	0.645078	0.816569	0.802105	1863 tags=24%	list=12%	signal=21%
REACTOME_RND2_GTPASE_CYCLE	39	0.35516	0.793437	0.64716	0.816569	0.802105	2565 tags=31%	list=16%	signal=26%
BIOCARTA_EIF_PATHWAY	9	0.40432	0.787422	0.642578	0.816569	0.802105	291 tags=11%	list=2%	signal=11%
REACTOME_MET_ACTIVATES_RAS_SIGNALING	9	0.399995	0.778999	0.648438	0.816569	0.802105	2569 tags=44%	list=16%	signal=37%
REACTOME_CD209_DC_SIGN_SIGNALING	16	-0.33634	-0.77811	0.642562	0.816569	0.802105	2610 tags=31%	list=17%	signal=26%
REACTOME_IKK_COMPLEX_RECRUITMENT_MEDIATED_BY_RIP1	23	-0.3232	-0.77119	0.647577	0.816569	0.802105	676 tags=26%	list=4%	signal=25%
REACTOME_RNA_POLYMERASE_I_TRANSCRIPTION_TERMINATION	29	-0.30986	-0.76804	0.647887	0.816569	0.802105	805 tags=34%	list=5%	signal=33%
REACTOME_REGULATION_OF_SIGNALING_BY_CBL	21	-0.32503	-0.76761	0.648305	0.816569	0.802105	2489 tags=24%	list=16%	signal=20%
REACTOME_PI3K_EVENTS_IN_ERBB2_SIGNALING	12	0.380854	0.767516	0.644101	0.816569	0.802105	6209 tags=58%	list=40%	signal=35%
BIOCARTA_EDG1_PATHWAY	20	0.367825	0.763393	0.642185	0.816569	0.802105	4863 tags=40%	list=31%	signal=28%
WP_EDA_SIGNALING_IN_HAIR_FOLLICLE_DEVELOPMENT	15	0.372564	0.760769	0.644788	0.816569	0.802105	2799 tags=27%	list=18%	signal=22%
REACTOME_TERMINAL_PATHWAY_OF_COMPLEMENT	4	0.495018	0.849089	0.651394	0.819671	0.805153	2952 tags=25%	list=19%	signal=20%
REACTOME_NEGATIVE_REGULATION_OF_THE_PI3K_AKT_NETWORK	91	0.351124	0.85911	0.653125	0.819713	0.805194	891 tags=9%	list=6%	signal=8%
REACTOME_RNA_POLYMERASE_II_TRANSCRIPTION_TERMINATION	62	0.366123	0.849649	0.654882	0.819713	0.805194	4098 tags=34%	list=26%	signal=25%
REACTOME_NEGATIVE_FEEDBACK_REGULATION_OF_MAPK_PATHW	6	-0.44479	-0.83882	0.654397	0.819713	0.805194	3558 tags=67%	list=23%	signal=52%
BIOCARTA_ERBB3_PATHWAY	6	0.443099	0.817997	0.653021	0.819713	0.805194	6209 tags=67%	list=40%	signal=40%
REACTOME_FGFR1C_LIGAND_BINDING_AND_ACTIVATION	7	-0.40916	-0.81142	0.654691	0.819713	0.805194	1909 tags=29%	list=12%	signal=25%
REACTOME_VEGFR2_MEDIATED_CELL_PROLIFERATION	12	-0.36009	-0.77694	0.653608	0.819713	0.805194	1662 tags=25%	list=11%	signal=22%
BIOCARTA_BCELLSURVIVAL_PATHWAY	16	0.375541	0.764875	0.65444	0.819713	0.805194	3601 tags=38%	list=23%	signal=29%
BIOCARTA_SKP2ZF_PATHWAY	9	0.395692	0.770618	0.65625	0.820807	0.806268	2960 tags=44%	list=19%	signal=36%
WP_EPO_RECEPTOR_SIGNALING	25	0.344634	0.74104	0.657244	0.821431	0.806881	1518 tags=16%	list=10%	signal=14%
REACTOME_EPHB_MEDIATED_FORWARD_SIGNALING	36	-0.30072	-0.75789	0.65808	0.821857	0.8073	2909 tags=47%	list=19%	signal=39%
WP_REGULATION_OF_ACTIN_CYTOSKELETON	135	0.336509	0.867969	0.664134	0.822615	0.808044	2578 tags=21%	list=16%	signal=18%
REACTOME_WAX_AND_PLASMALOGEN_BIOSYNTHESIS	4	0.48742	0.836056	0.663347	0.822615	0.808044	5807 tags=50%	list=37%	signal=32%
REACTOME_ABACAVIR_ADME	5	0.45797	0.820544	0.663366	0.822615	0.808044	3905 tags=40%	list=25%	signal=30%
REACTOME_AMINO_ACIDS_REGULATE_MTORC1	51	-0.30697	-0.78484	0.660147	0.822615	0.808044	2674 tags=33%	list=17%	signal=28%
REACTOME_ERBB2_ACTIVATES_PTK6_SIGNALING	8	0.399811	0.779302	0.660679	0.822615	0.808044	6209 tags=75%	list=40%	signal=45%
REACTOME_SEMA4D_MEDIATED_INHIBITION_OF_CELL_ATTACHME	8	0.396728	0.773292	0.662675	0.822615	0.808044	1299 tags=25%	list=8%	signal=23%
REACTOME_SIGNALING_BY_TYPE_1_INSULIN_LIKE_GROWTH_FACT	38	0.345852	0.768372	0.661996	0.822615	0.808044	624 tags=8%	list=4%	signal=8%
REACTOME_TELOMERE_MAINTENANCE	48	-0.29896	-0.7673	0.660333	0.822615	0.808044	4509 tags=38%	list=29%	signal=29%
WP_TOLLLIKE_RECEPTOR_SIGNALING	32	0.348083	0.767213	0.662609	0.822615	0.808044	4735 tags=44%	list=30%	signal=31%
BIOCARTA_IL3_PATHWAY	14	-0.33868	-0.7653	0.663951	0.822615	0.808044	3558 tags=36%	list=23%	signal=28%
REACTOME_UNFOLDED_PROTEIN_RESPONSE_UPR	11	0.381757	0.755771	0.664093	0.822615	0.808044	3223 tags=36%	list=21%	signal=29%
WP_ONECARBON_METABOLISM_AND_RELATED_PATHWAYS	44	0.352087	0.79151	0.665535	0.823113	0.808534	1187 tags=11%	list=8%	signal=11%
REACTOME_CARGO_RECOGNITION_FOR_CLATHRIN_MEDIATED_ENI	91	-0.2929	-0.78743	0.665746	0.823113	0.808534	3130 tags=38%	list=20%	signal=31%
BIOCARTA_ACE2_PATHWAY	11	0.377715	0.747768	0.666023	0.823113	0.808534	4733 tags=64%	list=30%	signal=44%
REACTOME_COBALAMIN_CBL_VITAMIN_B12_TRANSPORT_AND_ME	13	-0.35059	-0.77639	0.666667	0.823296	0.808713	572 tags=15%	list=4%	signal=15%
WP_OVARIAN_INFERTILITY	22	0.347406	0.737409	0.667279	0.823441	0.808855	5032 tags=45%	list=32%	signal=31%
REACTOME_SUMO_IS_TRANSFERRERED_FROM_E1_TO_E2_UBE2I_UBC	5	-0.44282	-0.81159	0.668008	0.823728	0.809137	536 tags=100%	list=3%	signal=97%



Biocarta_AGPCR_Pathway	10	-0.38102	-0.79497	0.67086	0.826018	0.811386	4077 tags=60%	list=26%	signal=44%
Reactome_Processing_and_Activation_of_SUMO	10	-0.38004	-0.79293	0.67086	0.826018	0.811386	1155 tags=30%	list=7%	signal=28%
Reactome_Phosphorylation_of_CD3_and_TCR_Zeta_Chains	11	-0.36536	-0.78168	0.671488	0.826178	0.811544	2272 tags=55%	list=14%	signal=47%
Biocarta_CACAM_Pathway	6	-0.43153	-0.81382	0.672802	0.82676	0.812116	844 tags=50%	list=5%	signal=47%
Reactome_Metabolism_of_Amine_Derived_Hormones	10	-0.37894	-0.79063	0.672956	0.82676	0.812116	4810 tags=50%	list=31%	signal=35%
Biocarta_ChREBP_Pathway	9	-0.37302	-0.76712	0.67551	0.829285	0.814596	2610 tags=56%	list=17%	signal=46%
WP_Eicosanoid_Synthesis	15	0.357561	0.730133	0.677606	0.831244	0.81652	5332 tags=47%	list=34%	signal=31%
Reactome_mRNA_Splicing_Minor_Pathway	48	0.344652	0.783541	0.681583	0.835506	0.820706	378 tags=6%	list=2%	signal=6%
Reactome_Foxo_Mediated_Transcription_of_Cell_Cycle_Ge	8	0.388864	0.757963	0.682635	0.835574	0.820774	2918 tags=38%	list=19%	signal=31%
Reactome_Metabolism_of_Porphyrins	20	-0.32131	-0.75468	0.683652	0.835574	0.820774	2152 tags=40%	list=14%	signal=35%
Reactome_Downregulation_of_TGF_Beta_Receptor_Signal	16	0.359625	0.732458	0.683398	0.835574	0.820774	208 tags=6%	list=1%	signal=6%
Biocarta_Plce_Pathway	11	0.368784	0.730087	0.683398	0.835574	0.820774	2277 tags=27%	list=14%	signal=23%
WP_Mapk_Signaling_Pathway	151	0.329352	0.860132	0.691489	0.835927	0.82112	1496 tags=11%	list=10%	signal=10%
Reactome_Clathrin_Mediated_Endocytosis	130	-0.29539	-0.79974	0.6875	0.835927	0.82112	3130 tags=39%	list=20%	signal=32%
Biocarta_SAM68_Pathway	6	-0.41774	-0.78781	0.689162	0.835927	0.82112	2834 tags=50%	list=18%	signal=41%
Reactome_Ligand_Receptor_Interactions	5	0.43632	0.781755	0.691089	0.835927	0.82112	4070 tags=60%	list=26%	signal=44%
Biocarta_IRES_Pathway	6	0.420871	0.776961	0.690058	0.835927	0.82112	1497 tags=17%	list=10%	signal=15%
Reactome_Iron_Uptake_and_Transport	50	-0.29096	-0.74969	0.68599	0.835927	0.82112	2024 tags=24%	list=13%	signal=21%
Reactome_Regulation_of_TP53_Activity_Through_Methyla	18	-0.32293	-0.7458	0.689218	0.835927	0.82112	676 tags=33%	list=4%	signal=32%
Biocarta_CXCR4_Pathway	18	-0.32195	-0.74353	0.689218	0.835927	0.82112	4077 tags=33%	list=26%	signal=25%
Reactome_Downstream_Signaling_of_Activated_FGFR3	21	-0.31399	-0.74154	0.690678	0.835927	0.82112	1909 tags=24%	list=12%	signal=21%
Biocarta_PTDINS_Pathway	14	0.363308	0.740079	0.690802	0.835927	0.82112	4496 tags=43%	list=29%	signal=31%
Biocarta_AGR_Pathway	30	-0.293	-0.7356	0.687793	0.835927	0.82112	2143 tags=23%	list=14%	signal=20%
Biocarta_Par1_Pathway	17	0.360823	0.733899	0.68906	0.835927	0.82112	1021 tags=18%	list=7%	signal=17%
Reactome_Downstream_Signal_Transduction	27	0.337831	0.726542	0.690141	0.835927	0.82112	3601 tags=37%	list=23%	signal=29%
Reactome_Signaling_By_Alk	15	0.35153	0.717818	0.685328	0.835927	0.82112	2278 tags=20%	list=15%	signal=17%
WP_Nuclear_Receptors_in_Lipid_Metabolism_and_Toxicity	16	0.351995	0.716918	0.689189	0.835927	0.82112	2741 tags=38%	list=17%	signal=31%
Biocarta_HivNef_Pathway	52	0.343934	0.794038	0.693603	0.837872	0.823031	2763 tags=17%	list=18%	signal=14%
Reactome_Serotonin_and_Melatonin_Biosynthesis	3	0.515083	0.830794	0.695481	0.839291	0.824425	1312 tags=33%	list=8%	signal=31%
Reactome_Metabolism_of_Nucleotides	84	0.334127	0.813659	0.695788	0.839291	0.824425	375 tags=2%	list=2%	signal=2%
Reactome_Signal_Regulatory_Protein_Family_Interaction	6	-0.41545	-0.7835	0.699387	0.839365	0.824497	3176 tags=50%	list=20%	signal=40%
Reactome_Linoleic_Acid_La_Metabolism	7	-0.39089	-0.77518	0.698603	0.839365	0.824497	2154 tags=29%	list=14%	signal=25%
Reactome_Signaling_By_FGFR1	44	0.33812	0.760111	0.697793	0.839365	0.824497	624 tags=7%	list=4%	signal=7%
Biocarta_Trka_Pathway	12	-0.34701	-0.74871	0.698969	0.839365	0.824497	377 tags=33%	list=2%	signal=33%
Reactome_Wnt_Mediated_Activation_of_Dvl	8	0.379819	0.740332	0.696607	0.839365	0.824497	4357 tags=50%	list=28%	signal=36%
Reactome_Sumoylation_of_Transcription_Factors	14	0.359065	0.731436	0.69863	0.839365	0.824497	3975 tags=43%	list=25%	signal=32%
Biocarta_Nuclearrs_Pathway	16	0.348274	0.70934	0.696911	0.839365	0.824497	2741 tags=38%	list=17%	signal=31%
Reactome_Defensins	3	-0.50729	-0.81758	0.701826	0.841097	0.826199	2272 tags=67%	list=14%	signal=57%
Reactome_Tnf_Signaling	56	0.342017	0.792695	0.701843	0.841097	0.826199	426 tags=7%	list=3%	signal=7%
Reactome_Adherens_Junctions_Interactions	31	0.329266	0.723742	0.703833	0.842874	0.827944	4842 tags=55%	list=31%	signal=38%
Reactome_Interleukin_9_Signaling	4	-0.45379	-0.79187	0.704591	0.843174	0.828239	4739 tags=50%	list=30%	signal=35%
Biocarta_TCAPOPTOSIS_Pathway	3	0.507974	0.819327	0.705305	0.84342	0.828481	1314 tags=33%	list=8%	signal=31%
Reactome_Mapk6_Mapk4_Signaling	72	0.336686	0.801055	0.707993	0.84598	0.830996	648 tags=4%	list=4%	signal=4%
Reactome_Neddylation	211	-0.28868	-0.79148	0.708464	0.84598	0.830996	3117 tags=35%	list=20%	signal=28%
Reactome_Fatty_Acyl_CoA_Biosynthesis	28	-0.29981	-0.73772	0.709602	0.846347	0.831356	883 tags=21%	list=6%	signal=20%
Reactome_Oxidative_Stress_Induced_Senesence	37	0.329183	0.726766	0.70979	0.846347	0.831356	876 tags=14%	list=6%	signal=13%
Reactome_Signaling_By_NTRK2_TKRB	8	-0.37929	-0.76327	0.712575	0.848134	0.833111	2767 tags=38%	list=18%	signal=31%
Reactome_Synthesis_of_PIPs_at_the_Plasma_Membrane	49	0.329892	0.750565	0.712821	0.848134	0.833111	4357 tags=37%	list=28%	signal=27%
Reactome_Signal_Transduction_By_L1	19	0.332934	0.693714	0.71243	0.848134	0.833111	3048 tags=32%	list=19%	signal=25%
Reactome_Golgi_Associated_Vesicle_Biogenesis	54	-0.29031	-0.74864	0.714976	0.850089	0.835032	3049 tags=37%	list=19%	signal=30%
WP_Microglia_Pathogen_Phagocytosis_Pathway	39	0.324963	0.725975	0.716007	0.850706	0.835638	4100 tags=38%	list=26%	signal=28%
Reactome_Post_NMDA_Receptor_Activation_Events	16	-0.31311	-0.72437	0.716942	0.851209	0.836131	3701 tags=44%	list=24%	signal=33%
Reactome_G_ALPHA_I_Signalling_Events	178	0.315587	0.84109	0.718101	0.851975	0.836884	645 tags=6%	list=4%	signal=5%
Reactome_Interleukin_1_Processing	6	0.405182	0.747999	0.721248	0.854488	0.839353	4667 tags=50%	list=30%	signal=35%
Biocarta_CPsf_Pathway	6	0.404399	0.746552	0.721248	0.854488	0.839353	3938 tags=50%	list=25%	signal=37%
WP_EGFR1_Signaling_Pathway	169	0.310684	0.824292	0.725782	0.855126	0.839979	2426 tags=16%	list=15%	signal=14%
Reactome_Hormone_Ligand_Binding_Receptors	3	0.493282	0.795631	0.722986	0.855126	0.839979	7682 tags=67%	list=49%	signal=34%
WP_Oxidative_Stress_and_Redox_Pathway	75	0.327	0.779073	0.728896	0.855126	0.839979	1056 tags=9%	list=7%	signal=9%
Biocarta_TSP1_Pathway	7	-0.38041	-0.75439	0.722555	0.855126	0.839979	3532 tags=71%	list=22%	signal=55%
Reactome_Digestion_and_Absorption	7	-0.37927	-0.75214	0.726547	0.855126	0.839979	4367 tags=43%	list=28%	signal=31%
Reactome_FGFR2B_Ligand_Binding_and_Activation	8	-0.3729	-0.75042	0.728543	0.855126	0.839979	373 tags=38%	list=2%	signal=37%
Biocarta_IFNG_Pathway	5	0.415402	0.744276	0.726733	0.855126	0.839979	809 tags=20%	list=5%	signal=19%
Reactome_MYD88_Mal_TIRAP_Cascade_Initiated_on_Plasma	83	-0.27871	-0.74396	0.729508	0.855126	0.839979	4045 tags=39%	list=26%	signal=29%
Reactome_Sensing_of_DNA_Double_Strand_Breaks	6	0.401176	0.740604	0.729045	0.855126	0.839979	5755 tags=67%	list=37%	signal=42%
Biocarta_Set_Pathway	9	-0.35891	-0.7381	0.728571	0.855126	0.839979	5918 tags=89%	list=38%	signal=55%
Reactome_FcGamma_Receptor_FcGR_Dependent_Phagocyt	76	-0.27662	-0.73465	0.724675	0.855126	0.839979	3003 tags=33%	list=19%	signal=27%
Reactome_Assembly_of_the_ORC_Complex_at_the_Origin_C	8	0.369229	0.719691	0.728543	0.855126	0.839979	2850 tags=25%	list=18%	signal=20%
WP_Hedgehog_Signaling_Pathway	20	0.335452	0.696206	0.728814	0.855126	0.839979	5016 tags=55%	list=32%	signal=37%
Reactome_Activation_of_IRF3_IRF7_Mediated_By_TBK1_IKK_E	17	0.340428	0.692417	0.729367	0.855126	0.839979	971 tags=24%	list=6%	signal=22%
Reactome_Nicotinamide_Salvaging	16	0.33744	0.687273	0.727799	0.855126	0.839979	2706 tags=25%	list=17%	signal=21%
Reactome_Type_I_Hemidesmosome_Assembly	7	-0.37722	-0.74807	0.730539	0.855213	0.840065	445 tags=29%	list=3%	signal=28%
Reactome_PISP_Regulates_TP53_Acetylation	9	-0.35795	-0.73613	0.730612	0.855213	0.840065	1558 tags=22%	list=10%	signal=20%
Reactome_Metabolism_of_Water_Soluble_Vitamins_and_C	103	0.317832	0.795173	0.731183	0.855229	0.840081	926 tags=7%	list=6%	signal=6%
Reactome_Pyrimidine_Salvage	10	-0.35338	-0.73731	0.731656	0.855229	0.840081	4769 tags=50%	list=30%	signal=35%
Biocarta_AKT_Pathway	19	-0.30652	-0.71088	0.732181	0.855241	0.840093	2684 tags=26%	list=17%	signal=22%
Reactome_Regulation_of_TP53_Activity_Through_Phospho	86	-0.27425	-0.73475	0.734072	0.856246	0.841079	4183 tags=30%	list=27%	signal=22%
Reactome_CGMP_Effects	10	-0.35199	-0.7344	0.733753	0.856246	0.841079	1796 tags=20%	list=11%	signal=18%
Reactome_Signaling_By_Interleukins	229	-0.29125	-0.80565	0.736508	0.856588	0.841415	3554 tags=31%	list=23%	signal=24%
Reactome_Formyl_Peptide_Receptors_Bind_Formyl_Peptide	5	-0.40542	-0.74305	0.736419	0.856588	0.841415	4523 tags=80%	list=29%	signal=57%
WP_Hypertrophy_Model	16	-0.30755	-0.71152	0.735537	0.856588	0.841415	1594 tags=25%	list=10%	signal=22%
Reactome_Interferon_Gamma_Signaling	14	0.33578	0.684003	0.735812	0.856588	0.841415	809 tags=14%	list=5%	signal=14%
Reactome_PECAM1_Interactions	12	0.33318	0.671442	0.736944	0.856588	0.841415	2493 tags=25%	list=16%	signal=21%
Biocarta_ASbCell_Pathway	4	-0.43928	-0.76655	0.738523	0.857636	0.842444	2272 tags=75%	list=14%	signal=64%
Reactome_SHC1_Events_in_ERBB2_Signaling	12	0.330908	0.666863	0.738878	0.857636	0.842444	4445 tags=50%	list=28%	signal=36%
Reactome_Gastrin_Creb_Signalling_Pathway_Via_Pkc_and	14	0.332551	0.677425	0.741683	0.86029	0.845052	1291 tags=14%	list=8%	signal=13%
Reactome_HDACs_Deacetylate_Histones	21	0.324216	0.675689	0.743396	0.861676	0.846413	1417 tags=10%	list=9%	signal=9%
Reactome_Met_Activates_PTPN11	5	0.4073	0.72976	0.744554	0.862416	0.84714	1299 tags=20%	list=8%	signal=18%
Reactome_Transcriptional_Regulation_By_NP45	4	-0.43083	-0.7518	0.746507	0.864075	0.84877	895 tags=75%	list=6%	signal=71%
WP_Kennedy_Pathway	14	-0.31466	-0.71102	0.747454	0.864569	0.849255	1548 tags=21%	list=10%	signal=19%
Reactome_Estrogen_Biosynthesis	3	0.472479	0.762077	0.750491	0.866875	0.85152	1775 tags=33%	list=11%	signal=30%



WP_TRANSCRIPTIONAL_ACTIVATION_BY_NFE2L2_IN_RESPONSE_TO	13	0.328764	0.665224	0.75	0.866875	0.85152	1579	tags=23%	list=10%	signal=21%
REACTOME_POSITIVE_EPIGENETIC_REGULATION_OF_RRNA_EXPRES	29	0.302886	0.658502	0.751736	0.867709	0.85234	1857	tags=24%	list=12%	signal=21%
REACTOME_DEGRADATION_OF_THE_EXTRACELLULAR_MATRIX	82	0.316705	0.765022	0.754747	0.869975	0.854566	2195	tags=24%	list=14%	signal=21%
REACTOME_DEGTIN_2_FAMILY	5	0.399443	0.715681	0.754455	0.869975	0.854566	3839	tags=60%	list=24%	signal=45%
WP_AFLATOXIN_B1_METABOLISM	4	0.437262	0.750022	0.758964	0.873877	0.858398	359	tags=25%	list=2%	signal=24%
REACTOME_SHC1_EVENTS_IN_ERBB4_SIGNALING	9	-0.34881	-0.71732	0.759184	0.873877	0.858398	377	tags=22%	list=2%	signal=22%
REACTOME_SIGNALING_BY_NODAL	6	0.390675	0.721217	0.760234	0.87448	0.85899	4628	tags=50%	list=29%	signal=35%
REACTOME_FATTY_ACIDS_BOUND_TO_GPR40_FFAR1_REGULATE_I	6	-0.38076	-0.71807	0.762781	0.876802	0.861272	3170	tags=50%	list=20%	signal=40%
REACTOME_PL_3K_CASCADE_FGFR3	15	-0.30294	-0.69561	0.764463	0.877654	0.862108	2767	tags=27%	list=18%	signal=22%
BIOCARTA_MITOCHONDRIA_PATHWAY	19	-0.29456	-0.68314	0.764579	0.877654	0.862108	1093	tags=47%	list=7%	signal=44%
REACTOME_TP53_REGULATES_TRANSCRIPTION_OF_GENES_INVOLV	7	-0.36465	-0.72315	0.766467	0.87907	0.8635	4037	tags=43%	list=26%	signal=32%
REACTOME_FGFR3B_LIGAND_BINDING_AND_ACTIVATION	6	-0.37905	-0.71484	0.766871	0.87907	0.8635	1909	tags=33%	list=12%	signal=29%
REACTOME_CELL_JUNCTION_ORGANIZATION	62	0.316087	0.735333	0.767677	0.879387	0.863811	2279	tags=31%	list=15%	signal=26%
REACTOME_NEUTROPHIL_DEGRANULATION	413	0.291059	0.841631	0.768276	0.879467	0.863889	2984	tags=20%	list=19%	signal=17%
REACTOME_DEUBIQUITINATION	228	-0.27809	-0.77271	0.77044	0.880125	0.864535	3505	tags=32%	list=22%	signal=25%
REACTOME_CHYLOMICRON_CLEARANCE	3	0.455997	0.735492	0.770138	0.880125	0.864535	5969	tags=67%	list=38%	signal=41%
BIOCARTA_CYTOKINE_PATHWAY	5	0.391666	0.701749	0.770297	0.880125	0.864535	3571	tags=60%	list=23%	signal=46%
REACTOME_ADAPTIVE_IMMUNE_SYSTEM	614	-0.26798	-0.81821	0.772358	0.880245	0.864654	2562	tags=24%	list=16%	signal=21%
REACTOME_TOLL_LIKE_RECEPTOR_4_TLR4_CASCADE	114	0.301229	0.765365	0.780822	0.880245	0.864654	971	tags=8%	list=6%	signal=7%
REACTOME_ATOMRIVASTATIN_ADME	4	0.429092	0.736008	0.7749	0.880245	0.864654	4291	tags=50%	list=27%	signal=36%
REACTOME_TIGHT_JUNCTION_INTERACTIONS	6	0.384782	0.710339	0.77193	0.880245	0.864654	748	tags=17%	list=5%	signal=16%
REACTOME_ERYTHROCYTES_TAKE_UP_CARBOON_DIOXIDE_AND_REL	9	-0.34393	-0.70729	0.77551	0.880245	0.864654	3918	tags=33%	list=25%	signal=25%
REACTOME_RNA_POLYMERASE_II_TRANScribes_SNRNA_GENES	71	-0.26836	-0.69954	0.780928	0.880245	0.864654	1838	tags=15%	list=12%	signal=14%
REACTOME_FGFR2_LIGAND_BINDING_AND_ACTIVATION	14	-0.30574	-0.69088	0.771894	0.880245	0.864654	2772	tags=29%	list=18%	signal=24%
REACTOME_PI3K_EVENTS_IN_ERBB4_SIGNALING	6	0.373369	0.689269	0.773879	0.880245	0.864654	6209	tags=67%	list=40%	signal=40%
REACTOME_VITAMIN_B5_PANTOTHENATE_METABOLISM	13	-0.31058	-0.6878	0.77572	0.880245	0.864654	335	tags=31%	list=2%	signal=30%
BIOCARTA_CREB_PATHWAY	20	-0.2917	-0.68514	0.77707	0.880245	0.864654	4077	tags=35%	list=26%	signal=26%
REACTOME_INTERFERON_SIGNALING	52	0.296703	0.684996	0.781145	0.880245	0.864654	1029	tags=13%	list=7%	signal=13%
REACTOME_SIGNALING_BY_ROBO_RECEPTORS	20	-0.29089	-0.68323	0.779193	0.880245	0.864654	676	tags=30%	list=4%	signal=29%
BIOCARTA_GPCR_PATHWAY	28	-0.27746	-0.68273	0.777518	0.880245	0.864654	3701	tags=39%	list=24%	signal=30%
REACTOME_ACYL_CHAIN_REMODELING_OF_DAG_AND_TAG	6	0.369062	0.681318	0.779727	0.880245	0.864654	1006	tags=17%	list=6%	signal=16%
WP_ROBO4_AND_VEGF_SIGNALING_PATHWAYS_CROSSTALK	6	0.368399	0.680095	0.779727	0.880245	0.864654	2348	tags=33%	list=15%	signal=28%
WP_SPLICING_FACTOR_NOVA_REGULATED_SYNAPTIC_PROTEINS	41	0.299536	0.668737	0.779896	0.880245	0.864654	4516	tags=51%	list=29%	signal=37%
REACTOME_TGF_BETA_RECEPTOR_SIGNALING_ACTIVATES_SMADS	35	0.302801	0.667432	0.773684	0.880245	0.864654	3375	tags=37%	list=21%	signal=29%
BIOCARTA_ERK5_PATHWAY	14	0.319118	0.650061	0.774951	0.880245	0.864654	1518	tags=21%	list=10%	signal=19%
WP_PROSTAGLANDIN_SYNTHESIS_AND_REGULATION	25	0.291446	0.626672	0.777385	0.880245	0.864654	2705	tags=28%	list=17%	signal=23%
REACTOME_FCERI_MEDIATED_CA_2_MOBILIZATION	25	0.290805	0.625295	0.779152	0.880245	0.864654	1596	tags=16%	list=10%	signal=14%
REACTOME_SIGNALING_BY_TGF_BETA_RECEPTOR_COMPLEX	71	-0.26602	-0.69344	0.77866	0.886909	0.871199	2009	tags=17%	list=13%	signal=15%
REACTOME_NUCLEOTIDE_BIOSYNTHESIS	12	-0.31815	-0.68644	0.787629	0.886909	0.871199	2302	tags=33%	list=15%	signal=28%
REACTOME_LAGGING_STRAND_SYNTHESIS	19	-0.2864	-0.66421	0.788337	0.886909	0.871199	5424	tags=53%	list=35%	signal=34%
REACTOME_TRANSPORT_AND_SYNTHESIS_OF_PAPS	6	-0.37176	-0.7011	0.791411	0.889346	0.873593	3731	tags=50%	list=24%	signal=38%
REACTOME_REVERSIBLE_HYDRATION_OF_CARBOON_DIOXIDE	10	-0.33039	-0.68933	0.792453	0.889346	0.873593	2260	tags=30%	list=14%	signal=26%
BIOCARTA_CASPASE_PATHWAY	20	-0.28227	-0.66299	0.791932	0.889346	0.873593	5431	tags=50%	list=35%	signal=33%
BIOCARTA_TH1TH2_PATHWAY	9	0.335822	0.65402	0.792969	0.889346	0.873593	5260	tags=56%	list=33%	signal=37%
REACTOME_HSF1_DEPENDENT_TRANSACTIVATION	22	0.297218	0.630879	0.794118	0.890033	0.874268	2417	tags=27%	list=15%	signal=23%
BIOCARTA_NKCELLS_PATHWAY	15	-0.28943	-0.6646	0.795455	0.890931	0.87515	3558	tags=40%	list=23%	signal=31%
REACTOME_TNFS_BIND_THEIR_PHYSIOLOGICAL_RECEPTORS	15	0.312421	0.637957	0.797297	0.892393	0.876586	7292	tags=67%	list=46%	signal=36%
REACTOME_SUMO_IS_PROTEOLYTICALLY_PROCESSED	6	-0.36719	-0.69248	0.799591	0.894357	0.878516	2951	tags=33%	list=19%	signal=27%
REACTOME_TNF_RECEPTOR_SUPERFAMILY_TNFSF_MEMBERS_MED	14	0.303448	0.619975	0.800391	0.89465	0.878803	600	tags=7%	list=4%	signal=7%
REACTOME_RHOV_GTPASE_CYCLE	36	0.287078	0.633863	0.801739	0.895554	0.879691	3679	tags=53%	list=23%	signal=26%
REACTOME_BBSOME_MEDIATED_CARGO_TARGETING_TO_CILIUM	13	0.30429	0.615703	0.802326	0.895607	0.879743	5843	tags=62%	list=37%	signal=39%
BIOCARTA_BBCELL_PATHWAY	3	-0.4434	-0.71461	0.803245	0.896031	0.88016	2272	tags=67%	list=14%	signal=57%
REACTOME_OTHER_INTERLEUKIN_SIGNALING	15	-0.28716	-0.65939	0.805785	0.898261	0.88235	2272	tags=27%	list=14%	signal=23%
REACTOME_SIGNALING_BY_FGFR	67	0.297439	0.699253	0.807947	0.898744	0.882825	1600	tags=13%	list=10%	signal=12%
REACTOME_FGFR1B_LIGAND_BINDING_AND_ACTIVATION	6	-0.36218	-0.68304	0.809816	0.898744	0.882825	373	tags=33%	list=2%	signal=33%
REACTOME_ANCHORING_OF_THE_BASAL_BODY_TO_THE_PLASMA	95	-0.25423	-0.67889	0.808333	0.898744	0.882825	3096	tags=27%	list=20%	signal=22%
REACTOME_TELOMERE_C_STRAND_SYNTHESIS_INITIATION	12	-0.31067	-0.67031	0.810309	0.898744	0.882825	4333	tags=50%	list=28%	signal=36%
REACTOME_CYCLIN_A_B1_B2_ASSOCIATED_EVENTS_DURING_G2_N	25	-0.27248	-0.65296	0.809633	0.898744	0.882825	1771	tags=20%	list=11%	signal=18%
BIOCARTA_PLG_PATHWAY	9	0.328908	0.640556	0.810547	0.898744	0.882825	4496	tags=33%	list=29%	signal=24%
WP_EICOSANOID_METABOLISM_VIA_LIPOXYGENASES_LOX	21	0.297368	0.619737	0.807547	0.898744	0.882825	4600	tags=38%	list=29%	signal=27%
BIOCARTA_MET_PATHWAY	33	0.276818	0.61046	0.808696	0.898744	0.882825	1955	tags=21%	list=12%	signal=19%
REACTOME_SEMAPHORIN_INTERACTIONS	51	0.278932	0.641448	0.81113	0.89879	0.88287	2528	tags=25%	list=16%	signal=21%
WP_MISMATCH_REPAIR	9	-0.33175	-0.68224	0.812245	0.898827	0.882906	4291	tags=56%	list=27%	signal=40%
BIOCARTA_DSP_PATHWAY	9	-0.33127	-0.68125	0.812245	0.898827	0.882906	2834	tags=67%	list=18%	signal=55%
REACTOME_RHOD_GTPASE_CYCLE	51	0.278218	0.639804	0.814503	0.900126	0.884182	2014	tags=24%	list=13%	signal=21%
WP_OXIDATION_BY_CYTOCHROME_P450	22	0.28768	0.610632	0.814338	0.900126	0.884182	2892	tags=27%	list=18%	signal=22%
BIOCARTA_DREAM_PATHWAY	12	-0.30833	-0.66524	0.818557	0.904004	0.887992	3701	tags=58%	list=24%	signal=45%
REACTOME_MISMATCH_REPAIR_MMR_DIRECTED_BY_MSH2_MSH3	9	-0.32787	-0.67427	0.822449	0.904694	0.888669	5424	tags=56%	list=35%	signal=36%
REACTOME_TOLL_LIKE_RECEPTOR_9_TLR9_CASCADE	93	-0.25006	-0.66903	0.821727	0.904694	0.888669	4045	tags=38%	list=26%	signal=28%
REACTOME_GLUTATHIONE_SYNTHESIS_AND_RECYCLING	11	-0.3083	-0.65961	0.820248	0.904694	0.888669	3137	tags=45%	list=20%	signal=36%
REACTOME_DNA_REPLICATION_INITIATION	8	0.324487	0.632481	0.822355	0.904694	0.888669	6708	tags=62%	list=43%	signal=36%
REACTOME_SUMOYLATION_OF_IMMUNE_RESPONSE_PROTEINS	11	0.316639	0.626856	0.822394	0.904694	0.888669	3365	tags=36%	list=21%	signal=29%
BIOCARTA_SHH_PATHWAY	15	0.297799	0.608099	0.820463	0.904694	0.888669	2075	tags=20%	list=13%	signal=17%
REACTOME_ARACHIDONIC_ACID_METABOLISM	36	0.276613	0.610757	0.824348	0.906182	0.890131	180	tags=3%	list=1%	signal=3%
REACTOME_RNA_POLYMERASE_I_TRANSCRIPTION	44	-0.25099	-0.63756	0.825666	0.907031	0.890965	3708	tags=30%	list=24%	signal=26%
REACTOME_PREGNENOLONE_BIOSYNTHESIS	11	-0.30546	-0.65352	0.828512	0.909344	0.893237	451	tags=27%	list=3%	signal=27%
REACTOME_PHOSPHOLIPASE_C_MEDIATED_CASCADE_FGFR1	12	-0.2999	-0.64706	0.828866	0.909344	0.893237	2772	tags=25%	list=18%	signal=21%
REACTOME_INTRACELLULAR_SIGNALING_BY_SECOND_MESSENGER	241	0.2847	0.781995	0.831625	0.911769	0.895619	798	tags=5%	list=5%	signal=5%
BIOCARTA_TERC_PATHWAY	6	0.341226	0.62993	0.832359	0.911971	0.895817	3439	tags=33%	list=22%	signal=26%
BIOCARTA_P27_PATHWAY	11	0.309521	0.612763	0.835907	0.915255	0.899043	2960	tags=45%	list=19%	signal=37%
REACTOME_PREDNISONO_ADME	4	0.395219	0.677907	0.838645	0.917648	0.901394	4291	tags=50%	list=27%	signal=36%
REACTOME_ERBB2_REGULATES_CELL_MOTILITY	11	0.306123	0.606037	0.839768	0.917668	0.901413	6209	tags=64%	list=40%	signal=39%
BIOCARTA_CSK_PATHWAY	12	0.298255	0.601059	0.839458	0.917668	0.901413	1263	tags=17%	list=8%	signal=15%
BIOCARTA_AKAPCENTROSOME_PATHWAY	12	0.297906	0.600355	0.841393	0.91819	0.901927	3083	tags=33%	list=20%	signal=27%
REACTOME_FGFR3_LIGAND_BINDING_AND_ACTIVATION	10	0.304543	0.59711	0.841905	0.91819	0.901927	357	tags=10%	list=2%	signal=10%
REACTOME_OVARIAN_TUMOR_DOMAIN_PROTEASES	31	0.26813	0.589363	0.841463	0.91819	0.901927	798	tags=13%	list=5%	signal=12%
REACTOME_GAMMA_CARBOXYLATION_HYPUISINE_FORMATION_AN	31	-0.25141	-0.63236	0.843458	0.918678	0.902405	1423	tags=32%	list=9%	signal=29%
BIOCARTA_EIF4_PATHWAY	21	0.283518	0.590871	0.843396	0.918678	0.902405	3881	tags=29%	list=25%	signal=22%
REACTOME_TOLL_LIKE_RECEPTOR_CASCADES	138	0.280456	0.724705	0.848624	0.923699	0.907337	2359	tags=15%	list=15%	signal=13%
REACTOME_FANCONI_ANEMIA_PATHWAY	35	-0.24701	-0.61887	0.849537	0.924087	0.907719	676	tags=34%	list=4%	signal=33%



REACTOME_ABC_FAMILY_PROTEINS_MEDIATED_TRANSPORT	92	0.278718	0.684103	0.852025	0.924351	0.907978	348 tags=3%	list=2%	signal=3%
REACTOME_SULFIDE_OXIDATION_TO_SULFATE	5	-0.35369	-0.64825	0.853119	0.924351	0.907978	10153 tags=100%	list=65%	signal=35%
REACTOME_DEADENYLATION_DEPENDENT_MRNA_DECAY	51	-0.24647	-0.63015	0.850856	0.924351	0.907978	3734 tags=33%	list=24%	signal=25%
REACTOME_HDR_THROUGH_HOMOLOGOUS_RECOMBINATION_HRI	52	-0.24512	-0.62448	0.852941	0.924351	0.907978	4683 tags=35%	list=30%	signal=24%
REACTOME_BIOSYNTHESIS_OF_EPA_DERIVED_SPMs	5	0.345568	0.619154	0.851485	0.924351	0.907978	2233 tags=40%	list=14%	signal=34%
BIOCARTA_RB_PATHWAY	12	0.291166	0.586773	0.852998	0.924351	0.907978	349 tags=8%	list=2%	signal=8%
BIOCARTA_ECM_PATHWAY	21	-0.25953	-0.61293	0.853814	0.924501	0.908125	3634 tags=43%	list=23%	signal=33%
REACTOME_SYNTHESIS_OF_IP2_IP_AND_INS_IN_THE_CYTOSOL	11	-0.2922	-0.62515	0.855372	0.925585	0.90919	919 tags=27%	list=6%	signal=26%
BIOCARTA_TALL1_PATHWAY	13	0.286246	0.579193	0.856589	0.926299	0.909891	600 tags=8%	list=4%	signal=7%
REACTOME_CYTOKINE_SIGNALING_IN_IMMUNE_SYSTEM	328	-0.25657	-0.75069	0.857627	0.926818	0.910401	3585 tags=27%	list=23%	signal=21%
REACTOME_ORGANIC_CATION_TRANSPORT	7	-0.32858	-0.65161	0.860279	0.929079	0.912623	10548 tags=100%	list=67%	signal=33%
REACTOME_ACETYLCHOLINE_REGULATES_INSULIN_SECRETION	7	-0.32674	-0.64797	0.862275	0.930241	0.913764	3170 tags=43%	list=20%	signal=34%
REACTOME_VLDL_CLEARANCE	3	0.400342	0.645724	0.862475	0.930241	0.913764	5203 tags=67%	list=33%	signal=45%
REACTOME_NUCLEOTIDE_BINDING_DOMAIN_LEUCINE_RICH_REPEAT	43	-0.24269	-0.61285	0.866828	0.934329	0.91778	3003 tags=23%	list=19%	signal=19%
REACTOME_MET_ACTIVATES_RAP1_AND_RAC1	11	0.287456	0.56908	0.868726	0.935161	0.918597	1665 tags=18%	list=11%	signal=16%
REACTOME_ACTIVATION_OF_SMO	11	0.284597	0.563421	0.868726	0.935161	0.918597	4602 tags=45%	list=29%	signal=32%
REACTOME_TIE2_SIGNALING	16	-0.26499	-0.61305	0.869835	0.935456	0.918887	2744 tags=19%	list=17%	signal=15%
REACTOME_INOSITOL_PHOSPHATE_METABOLISM	46	0.266829	0.600811	0.87069	0.935456	0.918887	2057 tags=22%	list=13%	signal=19%
REACTOME_GROWTH_HORMONE_RECEPTOR_SIGNALING	10	0.293786	0.576019	0.870476	0.935456	0.918887	2365 tags=20%	list=15%	signal=17%
REACTOME_TRANSPORT_TO_THE_GOLGI_AND_SUBSEQUENT_MOD	167	-0.24596	-0.66734	0.873112	0.93723	0.920629	1852 tags=22%	list=12%	signal=20%
BIOCARTA_EIF2_PATHWAY	9	-0.31	-0.63751	0.873469	0.93723	0.920629	4041 tags=56%	list=26%	signal=41%
REACTOME_NECTIN_NECTL_TRANS_HETERODIMERIZATION	7	0.314637	0.596437	0.874251	0.937464	0.920859	6928 tags=86%	list=44%	signal=48%
REACTOME_MRNA_SPLICING	199	-0.24366	-0.67109	0.876161	0.938905	0.922275	2967 tags=29%	list=19%	signal=24%
REACTOME_ACTIVATED_NTRK2_SIGNALS_THROUGH_FRS2_AND_FR	5	0.339096	0.607559	0.877228	0.939442	0.922802	5164 tags=60%	list=33%	signal=40%
BIOCARTA_GATA3_PATHWAY	10	-0.28874	-0.60243	0.878407	0.939616	0.922973	3701 tags=50%	list=24%	signal=38%
REACTOME_NICOTINATE_METABOLISM	26	0.250309	0.540077	0.878521	0.939616	0.922973	2941 tags=19%	list=19%	signal=16%
REACTOME_ACTIVATION_OF_ATR_IN_RESPONSE_TO_REPLICATION	34	0.25371	0.559107	0.879371	0.939919	0.923271	3483 tags=24%	list=22%	signal=18%
WP_INTEGRINMEDIATED_CELL_ADHESION	96	0.26504	0.655697	0.880435	0.939983	0.923333	2494 tags=23%	list=16%	signal=19%
REACTOME_FCR1_MEDIATED_MAPK_ACTIVATION	28	-0.24369	-0.59962	0.880562	0.939983	0.923333	4208 tags=39%	list=27%	signal=29%
REACTOME_INTERLEUKIN_3_INTERLEUKIN_5_AND_GM-CSF_SIGNALING	35	-0.23357	-0.5852	0.881944	0.940854	0.924189	2555 tags=23%	list=16%	signal=19%
WP_METHYLATION	7	-0.30826	-0.61131	0.884232	0.942579	0.925883	848 tags=29%	list=5%	signal=27%
BIOCARTA_D4GDI_PATHWAY	10	-0.2846	-0.5938	0.884696	0.942579	0.925883	4822 tags=60%	list=31%	signal=42%
REACTOME_SNRNP_ASSEMBLY	47	0.257952	0.583921	0.886207	0.943583	0.92687	4495 tags=36%	list=29%	signal=26%
BIOCARTA_PARKIN_PATHWAY	8	-0.30389	-0.61153	0.888224	0.945124	0.928384	3538 tags=38%	list=23%	signal=29%
REACTOME_REGULATION_OF_TP53_ACTIVITY	148	-0.24642	-0.66437	0.89049	0.945258	0.928514	1769 tags=12%	list=11%	signal=11%
REACTOME_FREE_FATTY_ACIDS_REGULATE_INSULIN_SECRETION	9	0.29867	0.581665	0.890625	0.945258	0.928514	1855 tags=22%	list=12%	signal=20%
REACTOME_MYOGENESIS	20	-0.24721	-0.58064	0.889597	0.945258	0.928514	2168 tags=20%	list=14%	signal=17%
REACTOME_ACTIVATION_OF_THE_PRE_REPLICATIVE_COMPLEX	30	0.250497	0.548671	0.890625	0.945258	0.928514	5649 tags=40%	list=36%	signal=26%
BIOCARTA_NGF_PATHWAY	19	-0.24834	-0.57595	0.892009	0.945989	0.929232	3558 tags=32%	list=23%	signal=24%
BIOCARTA_IL6_PATHWAY	21	0.259921	0.541694	0.892453	0.945989	0.929232	1955 tags=19%	list=12%	signal=17%
BIOCARTA_PEP1_PATHWAY	3	0.381214	0.614872	0.89391	0.946929	0.930156	2415 tags=33%	list=15%	signal=28%
BIOCARTA_IL22BP_PATHWAY	9	0.290842	0.566421	0.896484	0.949051	0.93224	751 tags=11%	list=5%	signal=11%
REACTOME_ASPARAGINE_N_LINKED_GLYCOSYLATION	248	-0.23888	-0.673	0.902516	0.950149	0.93332	2535 tags=25%	list=16%	signal=21%
REACTOME_PHOSPHORYLATION_OF_EMI1	6	-0.32454	-0.61206	0.903885	0.950149	0.93332	10611 tags=100%	list=68%	signal=32%
REACTOME_COENZYME_A_BIOSYNTHESIS	8	-0.29846	-0.60062	0.904192	0.950149	0.93332	11021 tags=100%	list=70%	signal=30%
BIOCARTA_CTRR_PATHWAY	9	-0.28953	-0.59541	0.9	0.950149	0.93332	3701 tags=44%	list=24%	signal=34%
REACTOME_P75NTR_REGULATES_AXONOGENESIS	9	-0.28799	-0.59225	0.9	0.950149	0.93332	494 tags=22%	list=3%	signal=22%
WP_HEME_BIOSYNTHESIS	9	-0.28572	-0.58759	0.904082	0.950149	0.93332	3762 tags=56%	list=24%	signal=42%
REACTOME_ZBP1_DAI_MEDIATED_INDUCION_OF_TYPE_I_IFNS	13	-0.26504	-0.58695	0.899177	0.950149	0.93332	2677 tags=31%	list=17%	signal=26%
WP_SEROTONIN_AND_ANXIETY	16	-0.25304	-0.5854	0.904959	0.950149	0.93332	3829 tags=50%	list=24%	signal=38%
REACTOME_MISMATCH_REPAIR	14	-0.25837	-0.58382	0.90224	0.950149	0.93332	5424 tags=57%	list=35%	signal=37%
REACTOME_RIBAVIRIN_ADME	10	-0.27653	-0.57695	0.901468	0.950149	0.93332	5042 tags=60%	list=32%	signal=41%
REACTOME_GDP_FUCOSE_BIOSYNTHESIS	6	0.31064	0.573466	0.904483	0.950149	0.93332	1926 tags=33%	list=12%	signal=29%
BIOCARTA_NOS1_PATHWAY	19	0.249479	0.519822	0.899814	0.950149	0.93332	2903 tags=26%	list=18%	signal=21%
BIOCARTA_MTOR_PATHWAY	19	0.244225	0.508876	0.903525	0.950149	0.93332	3609 tags=26%	list=23%	signal=20%
REACTOME_REGULATION_OF_PTEN_GENE_TRANSCRIPTION	41	0.248346	0.554452	0.906412	0.951075	0.934228	746 tags=7%	list=5%	signal=7%
REACTOME_FGFR1_MODULATION_OF_FGFR1_SIGNALING	10	-0.27297	-0.56954	0.907757	0.951537	0.934682	2772 tags=20%	list=18%	signal=16%
REACTOME_INTERLEUKIN_20_FAMILY_SIGNALING	10	0.275854	0.540861	0.908571	0.951537	0.934682	4809 tags=40%	list=31%	signal=28%
BIOCARTA_TPO_PATHWAY	25	0.242864	0.522212	0.908127	0.951537	0.934682	1955 tags=16%	list=12%	signal=14%
BIOCARTA_EFP_PATHWAY	13	-0.25874	-0.57298	0.909465	0.951872	0.935012	2337 tags=62%	list=15%	signal=52%
REACTOME_TRIGLYCERIDE_METABOLISM	12	-0.27071	-0.58407	0.91134	0.953234	0.93635	2722 tags=25%	list=17%	signal=21%
WP_HISTONE_MODIFICATIONS	5	0.322739	0.578251	0.912871	0.954134	0.937233	10638 tags=100%	list=68%	signal=32%
REACTOME_RET_SIGNALING	36	-0.22503	-0.56713	0.913349	0.954134	0.937233	2767 tags=25%	list=18%	signal=21%
REACTOME_REDUCTION_OF_CYTOSOLIC_CA_LEVELS	14	-0.25104	-0.56727	0.91446	0.954694	0.937784	3520 tags=36%	list=22%	signal=28%
BIOCARTA_CD42RAC_PATHWAY	7	-0.29108	-0.57725	0.916168	0.955276	0.938355	1727 tags=43%	list=11%	signal=38%
BIOCARTA_REELIN_PATHWAY	7	-0.29064	-0.57638	0.916168	0.955276	0.938355	3628 tags=43%	list=23%	signal=33%
BIOCARTA_ACETAMINOPHEN_PATHWAY	3	0.364741	0.588303	0.921415	0.960144	0.943137	4275 tags=67%	list=27%	signal=49%
BIOCARTA_CTLA4_PATHWAY	8	-0.28996	-0.5835	0.922156	0.960206	0.943198	1876 tags=62%	list=12%	signal=55%
REACTOME_HDR_THROUGH_MMEJ_ALT_NHEJ	12	0.261245	0.526475	0.922631	0.960206	0.943198	3762 tags=25%	list=24%	signal=19%
REACTOME_MYD88_INDEPENDENT_TLR4_CASCADE	99	-0.21973	-0.59284	0.925414	0.962423	0.945376	4045 tags=36%	list=26%	signal=27%
REACTOME_GAB1_SIGNALOSOME	13	-0.24918	-0.55182	0.925926	0.962423	0.945376	3388 tags=38%	list=22%	signal=30%
BIOCARTA_ACH_PATHWAY	12	0.260611	0.525196	0.926499	0.962423	0.945376	3601 tags=25%	list=23%	signal=19%
BIOCARTA_CCR5_PATHWAY	14	-0.2438	-0.5509	0.928717	0.964124	0.947047	4077 tags=43%	list=26%	signal=32%
BIOCARTA_IL2RB_PATHWAY	33	0.229424	0.505942	0.930435	0.965304	0.948206	4553 tags=30%	list=29%	signal=22%
REACTOME_SPERM_MOTILITY_AND_TAXES	5	-0.3051	-0.55917	0.93159	0.965899	0.94879	10916 tags=100%	list=70%	signal=31%
REACTOME_OAS_ANTIVIRAL_RESPONSE	4	0.334692	0.574087	0.932271	0.966002	0.948892	10450 tags=100%	list=67%	signal=33%
REACTOME_SMAC_XIAP_REGULATED_APOPTOTIC_RESPONSE	5	-0.29808	-0.54631	0.933602	0.966176	0.949062	2218 tags=40%	list=14%	signal=34%
BIOCARTA_NFAT_PATHWAY	42	0.238772	0.537252	0.933447	0.966176	0.949062	2752 tags=24%	list=18%	signal=20%
BIOCARTA_PKC_PATHWAY	7	0.271725	0.515092	0.938124	0.969751	0.952574	1576 tags=14%	list=10%	signal=13%
REACTOME_INTERLEUKIN_15_SIGNALING	11	0.254811	0.504453	0.938224	0.969751	0.952574	4955 tags=36%	list=32%	signal=25%
REACTOME_RESOLUTION_OF_AP_SITES_VIA_THE_MULTIPLE_NUCLE	24	-0.21958	-0.52601	0.939597	0.969963	0.952783	5424 tags=46%	list=35%	signal=30%
REACTOME_NOD1_2_SIGNALING_PATHWAY	31	0.23107	0.507903	0.939024	0.969963	0.952783	679 tags=10%	list=4%	signal=9%
WP_IL7_SIGNALING_PATHWAY	42	0.233216	0.52475	0.940273	0.970058	0.952876	2572 tags=21%	list=16%	signal=18%
REACTOME_BIOSYNTHESIS_OF_E-SERIES_18-S-RESOLVINS	4	0.313975	0.538552	0.944223	0.971672	0.95446	921 tags=25%	list=6%	signal=24%
REACTOME_SYNTHESIS_OF_5-EICOSATETRAENOIC_ACIDS	5	-0.28854	-0.52882	0.943662	0.971672	0.95446	11176 tags=60%	list=71%	signal=17%
BIOCARTA_ION_PATHWAY	5	-0.28631	-0.52474	0.943662	0.971672	0.95446	11211 tags=40%	list=71%	signal=11%
BIOCARTA_SRCRPTP_PATHWAY	10	0.259637	0.509064	0.944762	0.971672	0.95446	11630 tags=100%	list=74%	signal=26%
REACTOME_GPVI_MEDIATED_ACTIVATION_CASCADE	31	0.22743	0.499903	0.944251	0.971672	0.95446	3911 tags=29%	list=25%	signal=22%
REACTOME_METABOLISM_OF_STEROID_HORMONES	19	-0.22434	-0.52029	0.946004	0.972347	0.955124	3829 tags=32%	list=24%	signal=24%
WP_EBV_LMP1_SIGNALING	18	-0.2242	-0.51777	0.94926	0.97509	0.957819	4045 tags=56%	list=26%	signal=41%



BIOCARTA_RANMS_PATHWAY	9	-0.25927	-0.53318	0.95102	0.975692	0.958409	3067 tags=44%	list=20%	signal=36%
REACTOME_ARACHIDONATE_PRODUCTION_FROM_DAG	5	0.294222	0.527157	0.950495	0.975692	0.958409	1558 tags=20%	list=10%	signal=18%
REACTOME_PROCESSING_OF_CAPPED_INTRON_CONTAINING_PRE_	264	0.235822	0.654126	0.952035	0.975882	0.958596	2070 tags=13%	list=13%	signal=11%
REACTOME_SYNTHESIS_OF_PROSTAGLANDINS_PG_AND_THROMBO	10	0.2518	0.493698	0.952381	0.975882	0.958596	4443 tags=50%	list=28%	signal=36%
REACTOME_INTERLEUKIN_7_SIGNALING	13	-0.23269	-0.5153	0.954733	0.977518	0.960204	3761 tags=38%	list=24%	signal=29%
BIOCARTA_ACTINY_PATHWAY	10	-0.24369	-0.50845	0.955975	0.977518	0.960204	1542 tags=30%	list=10%	signal=27%
WP_IL9_SIGNALING_PATHWAY	22	-0.21215	-0.49947	0.956332	0.977518	0.960204	3558 tags=36%	list=23%	signal=28%
REACTOME_CLASS_C_3_METABOTROPIC_Glutamate_Pheromon	11	0.248369	0.491699	0.955598	0.977518	0.960204	1922 tags=18%	list=12%	signal=16%
REACTOME_RHO_GTPases_Activate_Rhotekin_and_Rhopilin	6	-0.27517	-0.51894	0.961145	0.980275	0.962912	5812 tags=67%	list=37%	signal=42%
REACTOME_HEME_BIOSYNTHESIS	12	-0.23447	-0.50588	0.960825	0.980275	0.962912	3762 tags=33%	list=24%	signal=25%
REACTOME_INTERLEUKIN_2_SIGNALING	8	0.247367	0.482161	0.96008	0.980275	0.962912	3591 tags=25%	list=23%	signal=19%
WP_BIOGENIC_AMINE_SYNTHESIS	11	0.242128	0.479344	0.96139	0.980275	0.962912	1312 tags=9%	list=8%	signal=8%
REACTOME_VITAMIN_B2_RIBOFLAVIN_METABOLISM	6	0.257567	0.47549	0.966862	0.982838	0.965429	3855 tags=33%	list=25%	signal=25%
REACTOME_SYNTHESIS_OF_IP3_AND_IP4_IN_THE_CYTOSOL	27	0.220237	0.473644	0.966549	0.982838	0.965429	2057 tags=19%	list=13%	signal=16%
WP_NODLIKE_RECEPTOR_NLR_SIGNALING_PATHWAY	9	0.234839	0.457354	0.966797	0.982838	0.965429	4314 tags=33%	list=27%	signal=24%
REACTOME_DAP12_INTERACTIONS	26	0.205598	0.443607	0.964789	0.982838	0.965429	5521 tags=50%	list=35%	signal=32%
BIOCARTA_CARDIACEGF_PATHWAY	18	0.20808	0.426673	0.965974	0.982838	0.965429	5003 tags=44%	list=32%	signal=30%
WP_IL1_SIGNALING_PATHWAY	34	-0.20644	-0.51753	0.969767	0.985189	0.967738	4045 tags=32%	list=26%	signal=24%
REACTOME_SYNTHESIS_OF_PIPs_AT_THE_ER_MEMBRANE	5	-0.26063	-0.47768	0.971831	0.986279	0.968809	1847 tags=40%	list=12%	signal=35%
REACTOME_HDR_THROUGH_SINGLE_STRAND_ANNEALING_SSA	34	0.209192	0.461001	0.972028	0.986279	0.968809	6388 tags=53%	list=41%	signal=31%
REACTOME_PROCESSIVE_SYNTHESIS_ON_THE_LAGGING_STRAND	14	-0.20572	-0.46486	0.973523	0.987193	0.969707	12478 tags=43%	list=79%	signal=9%
REACTOME_HISTIDINE_CATABOLISM	3	0.307636	0.496195	0.97446	0.98754	0.970048	5257 tags=67%	list=33%	signal=44%
REACTOME_DAP12_SIGNALING	24	-0.19462	-0.46622	0.975391	0.987881	0.970383	3257 tags=21%	list=21%	signal=17%
REACTOME_EGFR_INTERACTS_WITH_PHOSPHOLIPASE_C_GAMMA	5	0.275628	0.493843	0.976238	0.988136	0.970633	4496 tags=40%	list=29%	signal=29%
REACTOME_GENERIC_TRANSCRIPTION_PATHWAY	729	0.245956	0.74193	0.977893	0.988759	0.971245	1882 tags=12%	list=12%	signal=11%
REACTOME_CDC6_ASSOCIATION_WITH_THE_ORC_ORIGIN_COMPLE	7	0.234807	0.445108	0.978044	0.988759	0.971245	12019 tags=100%	list=77%	signal=23%
REACTOME_PROLACTIN_RECEPTOR_SIGNALING	7	0.233289	0.442231	0.98004	0.990174	0.972635	4464 tags=43%	list=28%	signal=31%
REACTOME_ANTIVIRAL_MECHANISM_BY_IFN_STIMULATED_GENES	29	0.19546	0.424949	0.980903	0.990443	0.9729	724 tags=7%	list=5%	signal=7%
BIOCARTA_ATRBRCA_PATHWAY	18	-0.19226	-0.44402	0.983087	0.992046	0.974474	12690 tags=100%	list=81%	signal=19%
BIOCARTA_RNA_PATHWAY	9	0.223289	0.434861	0.984375	0.992742	0.975158	4576 tags=33%	list=29%	signal=24%
REACTOME_DIGESTION_OF_DIETARY_CARBOHYDRATE	3	-0.29168	-0.47009	0.985801	0.993578	0.975978	11126 tags=100%	list=71%	signal=29%
WP_APOE_AND_MIR146_IN_INFLAMMATION_AND_ATHEROSCLERC	8	-0.24616	-0.49537	0.99002	0.995799	0.97816	11842 tags=50%	list=75%	signal=12%
REACTOME_INTERLEUKIN_21_SIGNALING	5	0.250392	0.448627	0.990099	0.995799	0.97816	2158 tags=20%	list=14%	signal=17%
REACTOME_LEUKOTRIENE_RECEPTORS	4	-0.25495	-0.44489	0.99002	0.995799	0.97816	11703 tags=50%	list=75%	signal=13%
REACTOME_G0_AND_EARLY_G1	17	0.177093	0.3602	0.990403	0.995799	0.97816	4911 tags=35%	list=31%	signal=24%
WP_HOMOLOGOUS_RECOMBINATION	12	-0.19219	-0.41466	0.991753	0.99595	0.978309	12690 tags=50%	list=81%	signal=10%
REACTOME_RESOLUTION_OF_D_LOOP_STRUCTURES	29	0.174863	0.380168	0.991319	0.99595	0.978309	5915 tags=45%	list=38%	signal=28%
REACTOME_CROSS_PRESENTATION_OF_PARTICULATE_EXOGENOUS	7	-0.20399	-0.40454	0.994012	0.99721	0.979547	4937 tags=57%	list=31%	signal=39%
REACTOME_ENDOSOMAL_VACUOLAR_PATHWAY	11	0.188596	0.373365	0.994208	0.99721	0.979547	6522 tags=55%	list=42%	signal=32%
WP_MRNA_PROCESSING	418	-0.20486	-0.61052	0.99639	0.997591	0.979921	3029 tags=26%	list=19%	signal=21%
REACTOME_ANDROGEN_BIOSYNTHESIS	4	0.243742	0.418084	0.996016	0.997591	0.979921	11878 tags=100%	list=76%	signal=24%
REACTOME_DEX_H_BOX_HELICASES_ACTIVATE_TYPE_I_IFN_AND_I	7	0.198277	0.375861	0.996008	0.997591	0.979921	4576 tags=29%	list=29%	signal=20%
REACTOME_PTK6_PROMOTES_HIF1A_STABILIZATION	5	0.215669	0.386414	0.99802	0.998198	0.980517	12319 tags=100%	list=78%	signal=22%
REACTOME_HOMOLOGOUS_DNA_PAIRING_AND_STRAND_EXCHANG	24	0.143855	0.307683	0.998198	0.998198	0.980517	6235 tags=46%	list=40%	signal=28%