

Table S1, Mthel et al.

Strain	Genotype	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
N2	wt	13,66 ± 0,26	
MT15107	<i>lin-53(n3368)</i>	8,69 ± 0,16	< 0,0001

Strain	Genotype	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
N2	wt	9,64 ± 0,29	
MT15107	<i>lin-53(n3368)</i>	5,39 ± 0,17	
BAT1883	<i>baf-1p::GFP::lin-53::2xFLAG</i>	10,36 ± 0,70	vs. wt 0,2488
BAT729	<i>lin-53(n3368); myo-3p::lin-53::2xFLAG</i>	4,67 ± 0,12	vs. <i>lin-53-/-</i> 0,0002

Strain	Genotype	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
N2	wt	13,66 ± 0,26	
MT15107	<i>lin-53(n3368)</i>	8,69 ± 0,16	< 0,0001
BAT320	<i>lin-53 CRISPR</i>	9,12 ± 0,14	< 0,0001

Strain	Genotype	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
N2	wt	11,87 ± 0,24	
HX103	<i>chd-3(eh4)</i>	15,33 ± 0,30	< 0,0001
MT14390	<i>lef-418(n3536)</i>	15,66 ± 0,18	< 0,0001
VC660	<i>lin-40(ok905)</i>	11,20 ± 0,33	0,0796
MT15107	<i>lin-53(n3368)</i>	7,52 ± 0,15	< 0,0001
MT12833	<i>lin-61(n3809)</i>	15,43 ± 0,20	< 0,0001

Strain	Genotype	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
N2	wt	13,66 ± 0,26	
BAT320	<i>lin-53(bar19)</i>	9,12 ± 0,14	< 0,0001

Strain	Genotype	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
N2	wt	11,87 ± 0,24	
MT15107	<i>lin-53(n3368)</i>	8,69 ± 0,16	< 0,0001
KC565	<i>sin-3(tm1276)</i>	10,46 ± 0,15	< 0,0001

Strain	Genotype	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
N2	wt	11,87 ± 0,24	
MT15795	<i>lsw-1(n3294)</i>	15,16 ± 0,27	< 0,0001
MT13649	<i>nurf-1(n4295)</i>	17,62 ± 0,27	< 0,0001

Strain	Genotype	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
N2	wt	11,87 ± 0,24	
MT20434	<i>chaf-11(n5453)</i>	14,76 ± 0,30	< 0,0001

Strain	Genotype	RNAi	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
N2	wt	<i>control</i>	16,24 ± 0,19	
N2	wt	<i>lin-53</i>	15,19 ± 0,23	0,0092

Strain	Genotype	treatment	Mean survival ± SEM in hours	p-value vs. control (Log-Rank test)
N2	wt	37°C	13,07 ± 0,58	
MT15107	<i>lin-53(n3368)</i>	37°C	9,48 ± 0,22	< 0,0001
CB1370	<i>daf-2(e1370)</i>	37°C	15,56 ± 0,62	0,0519
BAT376	<i>daf-2(e1370); lin-53(n3368)</i>	37°C	12,57 ± 0,33	vs. wt 0,4671 vs. <i>daf-2-/-</i> 0,0251 vs. <i>lin-53-/-</i> < 0,0001

Strain	Genotype	RNAi	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
KC565	<i>sin-3(tm1276)</i>	<i>control</i>	12,28 ± 0,22	
KC565	<i>sin-3(tm1276)</i>	<i>lin-53</i>	12,64 ± 0,26	0,0919
N2	wt	<i>control</i>	16,24 ± 0,19	
N2	wt	<i>lin-53</i>	15,19 ± 0,23	0,0082

Strain	Genotype	treatment	Mean survival ± SEM in hours	p-value vs. control (Log-Rank test)
N2	wt	<i>Paraquat</i>	52,27 ± 1,18	
MT15107	<i>lin-53(n3368)</i>	<i>Paraquat</i>	4,66 ± 0,29	< 0,0001
CB1370	<i>daf-2(e1370)</i>	<i>Paraquat</i>	100,31 ± 2,66	< 0,0001
BAT376	<i>daf-2(e1370); lin-53(n3368)</i>	<i>Paraquat</i>	5,65 ± 0,56	vs. <i>daf-2-/-</i> < 0,0001 vs. <i>lin-53-/-</i> < 0,6835

Strain	Genotype	survival ± SEM in	p-value vs. control (Log-Rank test)
N2	wt	9,64 ± 0,29	
MT15107	<i>lin-53(n3368)</i>	5,39 ± 0,17	
BAT1883	<i>lin-53(n3368); barEx974 [baf-1p::GFP::lin-53::2xFLAG]</i>	10,36 ± 0,7	vs. <i>lin-53-/-</i> < 0,0001 vs. wt 0,2488
	<i>lin-53(n3368); barIS87 [myo-3p::lin-53::2xFLAG]</i>	4,67 ± 0,12	vs. <i>lin-53-/-</i> 0,0002
BAT729	<i>barIS87 [myo-3p::lin-53::2xFLAG]; barsiz23 [baf-1p::GFP::lin-53::2xFLAG::SL2::NLS::tagRFP]</i>	8,94 ± 0,29	vs. wt 0,0047
BAT1943		11,64 ± 0,1	vs. wt < 0,0001

Strain	Genotype	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
N2	wt	11.87 ± 0.24	
VC764	haf-1(pk1265)	16.93 ± 0.34	< 0.0001

Strain	Genotype	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
N2	wt	11.87 ± 0.24	
MT8839	lin-52(n771)	19.43 ± 0.30	< 0.0001
MT5470	lin-37(n758)	14.66 ± 0.24	< 0.0001
MT11147	dpl-1(n3643)	16.74 ± 0.28	< 0.0001

Strain	Genotype	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
N2	wt	13.66 ± 0.26	
MT15107	lin-53(n3368)	8.69 ± 0.16	< 0.0001
CB1370	daf-2(e1370)	28.29 ± 0.75	< 0.0001
BAT376	daf-2(e1370); lin-53(n3368)	14.02 ± 0.47	vs. wt 0.2954 vs. daf-2/- < 0.0001 vs. lin-53/- < 0.0001

Strain	Genotype	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
N2	wt	13.66 ± 0.26	
MT15107	lin-53(n3368)	8.69 ± 0.16	< 0.0001
CB1370	daf-2(e1370)	28.29 ± 0.75	< 0.0001
BAT762	daf-2(e1370); sin-3(tm1276)	22.42 ± 0.63	vs. wt < 0.0001 vs. daf-2/- < 0.0001 vs. lin-53/- < 0.0001

Strain	Genotype	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
MT15107	lin-53(n3368)	control	9.78 ± 0.14
MT15107	lin-53(n3368)	Trehalose	10.88 ± 0.17
KC565	sin-3(tm1276)	control	10.46 ± 0.15
KC565	sin-3(tm1276)	Trehalose	12.34 ± 0.28
N2	wt		13.66 ± 0.26
N2	wt	Trehalose	20.18 ± 0.41

Strain	Genotype	Mean survival ± SEM in days	p-value vs. control (Log-Rank test)
N2	wt	control	18.11 ± 0.26
N2	wt	Trehalose	20.18 ± 0.41

Lifespan Data Figure S1F

Repeat I			
%BAT1943			
#day	dead	censored	
0	0	0	0
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	0	0
14	1	0	0
15	0	0	0
16	1	0	0
17	8	0	0
21	16	0	0
22	2	1	0
23	4	0	0
24	5	0	0
28	10	0	0
29	2	0	0

Repeat II			
%BAT1943			
#day	dead	censored	
0	0	0	0
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
7	0	0	0
8	0	1	0
9	0	0	0
10	0	0	0
14	2	0	0
15	2	1	0
16	1	0	0
17	0	1	0
21	10	10	0
22	4	0	0
23	7	0	0
24	3	0	0
28	4	0	0
29	0	0	0
30	0	0	0
31	0	0	0
32	1	0	0
35	3	0	0

Repeat III			
%BAT1943			
#day	dead	censored	
0	0	0	0
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	0	0
14	3	0	0
15	2	0	0
16	3	0	0
17	8	0	0
21	13	0	0
22	5	0	0
23	3	0	0
24	3	0	0
28	10	0	0

Repeat I			
%N2			
#day	dead	censored	
0	0	0	0
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	0	0
14	2	1	0
15	1	0	0
16	3	0	0
17	10	2	0
21	14	1	0
22	8	0	0
23	6	0	0
24	0	0	0
28	2	0	0

Repeat II			
%N2			
#day	dead	censored	
0	0	0	0
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
7	0	4	0
8	0	0	0
9	0	0	0
10	0	0	0
14	2	0	0
15	1	1	0
16	4	0	0
17	18	0	0
21	3	4	0
22	3	0	0
23	4	0	0
24	3	0	0
28	3	0	0

Repeat III			
%N2			
#day	dead	censored	
0	0	0	0
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
7	0	2	0
8	0	0	0
9	0	2	0
10	0	1	0
14	8	6	0
15	2	0	0
16	2	0	0
17	10	0	0
21	10	0	0
22	2	0	0
23	1	0	0
24	2	0	0
28	2	0	0

%BAT1943				%N2			
#day	dead	censored		#day	dead	censored	
0		0	0	0		0	0
1		0	0	1		0	0
2		0	0	2		0	0
3		0	0	3		0	0
4		0	0	4		0	0
7		0	0	7		0	6
8		0	1	8		0	0
9		0	0	9		0	2
10		0	0	10		0	1
14		6	0	14	12		7
15		4	1	15	4		1
16		5	0	16	9		0
17		16	1	17	38		2
21		39	10	21	27		5
22		11	1	22	13		0
23		14	0	23	11		0
24		11	0	24	5		0
28		24	0	28	7		0
29		2	0				
30		0	0				
31		0	0				
32		1	0				
35		3	0				

Strain	Genotype	RNAi	Mean survival ± SEM in days	Number of animals died/total	p-value vs. control (Log-Rank test)	remark
N2	<i>wt</i>		13,66 ± 0,26	130/150		
MT15107	<i>lin-53(n3368)</i>		8,69 ± 0,16	174/174	< 0,0001	
CB1370	<i>daf-2(e1370)</i>		28,29 ± 0,75	128/150	< 0,0001	
BAT376	<i>daf-2(e1370); lin-53(n3368)</i>		14,02 ± 0,47	104/118	vs. <i>wt</i> 0,2954 vs. <i>daf-2</i> -/- < 0,0001 vs. <i>lin-53</i> -/- < 0,0001	
BAT320	<i>lin-53(bar19)</i>		9,12 ± 0,14	133/150	< 0,0001	
N2	<i>wt</i>		9,64 ± 0,29	127/150		
MT15107	<i>lin-53(n3368)</i>		5,39 ± 0,17	128/140		
BAT1883	<i>lin-53(n3368); barEx974 [baf-1p::GFP::lin-53::2xFLAG]</i>		10,36 ± 0,70	19/25	vs. <i>lin-53</i> -/- < 0,0001 vs. <i>wt</i> 0,2488	
BAT729	<i>barIS87 [myo-3p::lin-53::2xFLAG]</i>		4,67 ± 0,12	132/140	vs. <i>lin-53</i> -/- 0,0002	animals were kept continuously at 25°C, scoring was started at L4 stage
	<i>barSI23 [baf-1p::GFP::lin-53::2xFLAG::SL2::NLS::tagRFP]</i>		8,94 ± 0,29	94/150	vs. <i>wt</i> 0,0047	
BAT1943			11,64 ± 0,16	194/200	vs. <i>wt</i> < 0,00001	
N2	<i>wt</i>		11,87 ± 0,24	95/95		
HX103	<i>chd-3(eh4)</i>		15,33 ± 0,30	129/139	< 0,0001	
VC924	<i>dcp-66(gk370)</i>		8,20 ± 0,32	35/35	< 0,0001	
MT14390	<i>let-418(n3536)</i>		15,66 ± 0,18	213/213	< 0,0001	
VC660	<i>lin-40(ok905)</i>		11,20 ± 0,33	75/75	0,0796	
MT15107	<i>lin-53(n3368)</i>		7,52 ± 0,15	122/122	< 0,0001	animals were kept continuously at 25°C
MT12833	<i>lin-61(n3809)</i>		15,43 ± 0,20	134/150	< 0,0001	
MT15795	<i>isw-1(n3294)</i>		15,16 ± 0,27	140/150	< 0,0001	
MT13649	<i>nurf-1(n4295)</i>		17,62 ± 0,27	132/150	< 0,0001	
MT8839	<i>lin-52(n771)</i>		19,43 ± 0,30	140/150	< 0,0001	
MT5470	<i>lin-37(n758)</i>		14,66 ± 0,24	121/150	< 0,0001	
MT11147	<i>dpl-1(n3643)</i>		16,74 ± 0,28	123/150	< 0,0001	
MT20434	<i>chaf-1(n5453)</i>		14,76 ± 0,30	140/145	< 0,0001	
KC565	<i>sin-3(tm1276)</i>		10,46 ± 0,15	108/130	< 0,0001	
VC764	<i>hat-1(ok1265)</i>		16,93 ± 0,34	128/150	< 0,0001	
N2	<i>wt</i>		13,66 ± 0,26	130/150		
CB1370	<i>daf-2(e1370)</i>		28,29 ± 0,75	128/150	< 0,0001	
KC565	<i>sin-3(tm1276)</i>		10,46 ± 0,15	108/130	< 0,0001	
BAT762	<i>daf-2(e1370); sin-3(tm1276)</i>		22,42 ± 0,63	131/148	vs. <i>wt</i> < 0,0001 vs. <i>daf-2</i> -/- < 0,0001 vs. <i>lin-53</i> -/- < 0,0001	
KC565	<i>sin-3(tm1276)</i>	<i>control</i>	12,28 ± 0,22	115/150		
KC565	<i>sin-3(tm1276)</i>	<i>lin-53</i>	12,64 ± 0,26	110/145	0,0919	
N2	<i>wt</i>	<i>control</i>	18,11 ± 0,26	36/50	< 0,0001	
N2	<i>wt</i>	<i>Trehalose</i>	20,18 ± 0,41	61/94	< 0,0001	
MT15107	<i>lin-53(n3368)</i>	<i>control</i>	9,78 ± 0,14	242/250		
MT15107	<i>lin-53(n3368)</i>	<i>Trehalose</i>	10,88 ± 0,17	11/145	< 0,0001	
KC565	<i>sin-3(tm1276)</i>	<i>control</i>	10,46 ± 0,15	108/130		
KC565	<i>sin-3(tm1276)</i>	<i>Trehalose</i>	12,34 ± 0,28	137/145	< 0,0001	
N2	<i>wt</i>	<i>control</i>	16,24 ± 0,19	120/175		
N2	<i>wt</i>	<i>lin-53</i>	15,19 ± 0,23	163/200	0,0092	
N2	<i>wt</i>	37°C	13,07 ± 0,58	120/120		
MT15107	<i>lin-53(n3368)</i>	37°C	9,48 ± 0,22	80/80	< 0,0001	
CB1370	<i>daf-2(e1370)</i>	37°C	15,56 ± 0,62	90/90	0,0519	
BAT376	<i>daf-2(e1370); lin-53(n3368)</i>	37°C	12,57 ± 0,33	60/60	vs. <i>wt</i> 0,4671 vs. <i>daf-2</i> -/- 0,0251 vs. <i>lin-53</i> -/- < 0,0001	
N2	<i>wt</i>	<i>control</i>	18,11 ± 0,26	36/50		
N2	<i>wt</i>	<i>Trehalose</i>	20,18 ± 0,41	62/95	< 0,0001	