

SUPPLEMENTARY DATA

Supplementary Table 1

B-LCL	A*	B*	C*	DRA*	DRB1*	DRB3*	DRB4*	DRB5*	DQA1*	DQB1*	DPA1*	DPB1*
BSM	02:01:01:01	15:01:01:01	03:04:01:01	01:01:01	04:01:01:01, 04:01:01:02		01:03:01:01, 01:03:01:03		03:01:01	03:02:01	01:03:01:01	02:01:02:01
BM14	03:01:01:01	07:02:01:01	07:02:01:03	01:01:01	04:01:01:02		01:03:01:11		03:01:01	03:02:01	01:03:01:04	04:01:01:01
MT14B	31:01:02:01	40:01:02:01	03:04:01:01	01:01:01	04:04:01		01:03:01:01, 01:03:01:03		03:01:01	03:02:01	01:03:01:05	04:02:01:02
VAVY	01:01:01:01	08:01:01:01	07:01:01:01	01:02:02	03:01:01:01	01:01:02:01, 01:01:02:02			05:01:01:02	02:01:01:01	02:01:02:02	01:01:01
KLO	01:01:01:01, 02:08	08:01:01:01, 50:01:01	06:02:01:02, 07:01:01:01		03:01:01:01, 07:01:01:01	01:01:02:01, 01:01:02:02	01:03:01:01, 01:03:01:03		02:01:01:01, 05:01:01:02	02:01:01, 02:02:01:01	01:03:01:02, 02:01:02:01	01:01:01, 104:01
KAS011	01:01:01:01	37:01:01:01	06:02:01:01	01:01:01	16:01:01			02:02	01:02:02:01	05:02:01:01	01:03:01:02, 02:01:01:02	04:01:01:01, 14:01:01:01
WIN	01:01:01:01	57:01:01:01	06:02:01:01	01:01	07:01:01:01, 07:01:01:02		01:01		02:01:01:01, 02:01:01:02	02:02:01:01, 03:03:02:01	01:03:01:02, 02:01:04	04:01:01:01, 13:01:01:01
TISI	24:02:01:01	35:08:01	04:01:01:06	01:01:01	11:03:01	02:02			05:05:01:01, 05:05:01:02	03:01:01	01:03:01:05	04:02:01:02
SPO	02:01:01:01	44:02:01:01	05:01:01:02	01:01:01	11:01:01:01	02:02:01:02			01:02:02	05:02:01	01:03:01:01	02:01:02
HOR	33:03:01:02	44:02:01:01	14:03	01:02:02	13:02:01	03:01:01			01:02:01:09	06:04:01:01	01:03:01:01	04:01:01:26
AMALA	02:17:02:01	15:01:01:01	03:03:01:01	01:02:02	14:02:01:01	01:01:02:05			05:03:01:01	03:01:01:01	01:03:01:15	04:02:01:02
KAS116	24:02:01:01	51:01:01:03	12:03:01:01	01:01:01	01:01:01				01:01:01:01	05:01:01	02:01:01:01	13:01:01:01
DJS	02:01:01:01, 03:01:01:01	37:01:01, 35:01:01:02	04:01:01:01, 06:02:01:01		01:01:01, 16:01:01			02:02	01:01:01:01, 01:02:02	05:02:01, 05:01:01:03	01:03:01:02, 01:03:01:05	04:01:01:01, 04:02:01:02
WT24	02:01:01:01	27:05:02	02:02:02:01		16:01:01			02:02		05:02:01	01:03:01:03	03:01:01
KE	02:03:01, 11:01:01:01	38:02:01, 15:02:01:01	08:01:01, 07:02:01:01		04:05:01, 08:14:01		01:03:01:01		03:03:01, 01:03:01:05	04:01:01, 06:01:01	02:02:02	02:02, 05:01:01
SA	24:02:01:01	07:02:01:01	07:02:01:03	01:01:01	01:01:01				01:01:01	05:01:01	01:03:01:05	04:02:01:02

Table 1. HLA allotypes of the LCL obtained from IPD-IMGT/HLA - Human Leukocyte Antigen Sequence Database (Robinson et al., 2020).

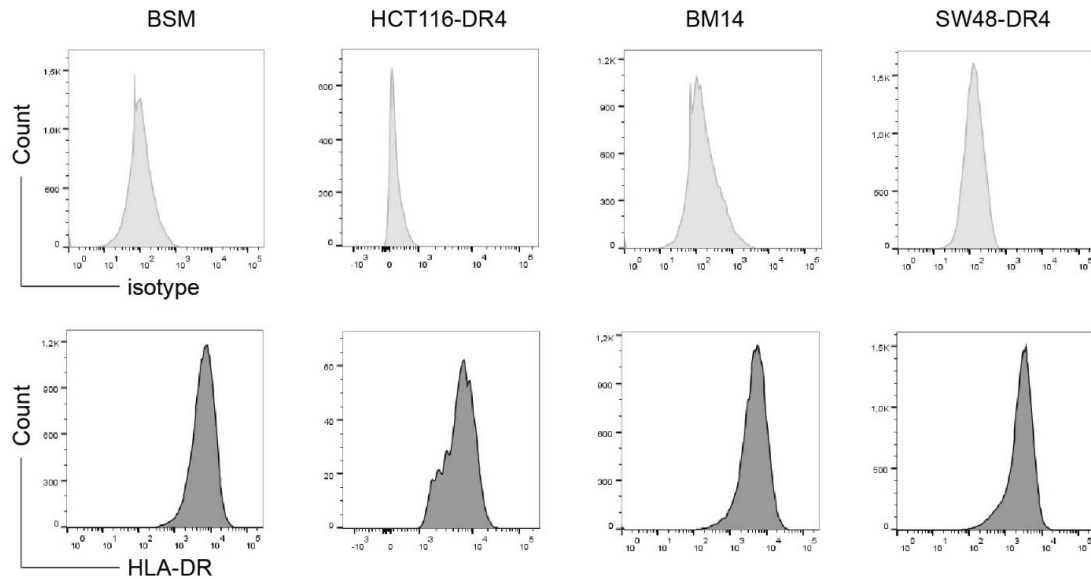
Supplementary Table 2

Peptide sequences containing the TCR1414_1 and TCR1414_2 recognition motifs.

Peptides containing the TCR1414_1 recognition motif x-x-L-M-x-x-M-T-x-x-x-x-x-x			
Peptide nr	Protein name	Peptide sequence	Affinity IC50 (nM)
1	Bardet-Biedl syndrome 2 protein	arLMrdMkTmksrym	261
2	Calcium-activated potassium channel subunit α -1	ylLMvtMsTvgygdv	226
3	Ribosomal protein S6 kinase alpha-1	gvLMfeMITgslpfq	154
4	Ribosomal protein S6 kinase alpha-3	gvLMfeMITgtlpfq	152
5	Ribosomal protein S6 kinase beta-2	gaLMydMITgspfft	291
6	Dual 3',5'-cyclic-AMP and -GMP phosphodiesterase 11A	cqLMfaMITtagfqd	165
7	Zinc finger protein PLAGL1	ykLMrhMaThspqks	61
8	Transmembrane protein 131-like	yiLMefMkTrqrqna	260
9	Ufm1-specific protease 2	idLMleMsTslaavt	110

Peptide containing the TCR1414_2 recognition motif x-x-L-M-x-x-M-T-x-x-x-x-x-x			
Peptide nr	Protein name	Peptide sequence	Affinity IC50 (nM)
10	Rho guanine nucleotide exchange factor 28	sfLMnrMTsprnksk	143
11	Glucosidase 2 subunit beta (80K-H protein)	eyLMelMTpaacpep	201
12	Heat shock protein 105 kDa	lrLMndMTavalnyg	125
13	PAN2-PAN3 deadenylation complex subunit PAN3	ypLMqrMTnssssps	76
14	Prostatic acid phosphatase (PAP)	rtLMsaMTnlaalfp	17
15	Toll-like receptor 7	lfLMvmMTashlyfw	120

Supplementary Figure 1

**Supplementary Figure 1. HLA-DR expression in tumor and lymphoblastoid cell lines.**

Tumor cell lines SW48-DR4, HCT-DR4 and LCL cells BSM, BM14 were stained for HLA-DR (dark grey) or isotype control (light grey) and were measured by flow cytometry.