

Supplementary Table S3. Docking results of CTL and HTL epitopes with MHC I and II alleles.

Epitopes	Peptide	MHC-I	PDB ID	ΔG (kcal mol ⁻¹)	Kd (M) at °C	Hydrogen bond
CTL epitopes	SIGRIAFIL	HLA-A*02:01	1B0G	-10.1	4.2e ⁻⁰⁸	tyr7-ser275, tyr59-ser275, thr73-ala280, asp77-leu283, tyr99-gly277, trp147-le282, thr163-arg-278, thr163-arg278, tyr171-ser275
	LIWVVFGY	HLA-A*29:02	2CLR	-10.6	1.8e ⁻⁰⁸	tyr7-leu276, asn77-tyr284, arg114-phe282
	SIEAEILSL	HLA-A*02:01	2X4S	-9.0	2.4e ⁻⁰⁷	tyr59-ser275, tyr59-ser275, glu63-leu276, gln70-val277, asp77-lys283, tyr99-val283, trp147-lys283, ala150-lys281, glu152-lys281, tyr159-ser275
	SLVEETKNK	HLA-A*03:01	3RL1	-8.5	5.6e ⁻⁰⁷	tyr7-ser275, glu63-ile276, lys66-ile276, tyr159-ser275, tyr171-ser275, tyr171-ser275
	GTAYKWGST	HLA-B*15:01	2BVP	-10.8	1.1e ⁻⁰⁸	glu76-ser284, asn80-thr285, asn80-ser284, lys146-ser284, lys146-thr285
	GLNTKYTKS	HLA-A*02:01	2X4S	-9.0	2.4e ⁻⁰⁷	glu63-leu276, lys66-thr278, tyr116-thr281, trp147-lys282, tyr159-gly275, tyr171-gly275
HTL epitopes	PVVFGYSIGRIAFIL	HLA-DRB1*13:02	1FV1	-7.2	5.7e ⁻⁰⁶	Gln6-phe190, ser50-ile185, ser50-trp187, asn59-phe190, asp63-tyr192, asn66-ser193
	TFFYALIIWVVFGYS	HLA-DRB1*15:01	8TBP	-8.1	1.1e ⁻⁰⁶	Asp63-tyr192, asn66-ser193, gln6-phe190, asn59-phe190, ser50-trp187, ile185-ser50, leu184-phe181
	DFGGSIEAEILSLRT	HLA-DRB1*04:01	5LAX	-8.4	6.7e ⁻⁰⁷	Gln10-thr192, glu12-lys193, glu12-lys195, arg51-ile186, phe52-ile186, phe52-ser-187, ser54-ser187, ser54-val189, asp67-lys193,asn70-glu197,asn70-tyr199,arg77-glu197, Ser52-ile187, asn61-leu192, asn61-glu190
	ISLVEETKNKHEAYE	HLA-DRB1*12:01	3PDO	-5.8	5.6e ⁻⁰⁵	
	KTTLKGTAYKWGSTL	HLA-DRB1*11:01	6CPL	-8.1	1.1e ⁻⁰⁶	Glu1-gly180, gln6-his194,gln6-ser188,glu8-ala190,ser50-asn182, ser50-tyr185,ser50-asn182,glu52-lys187,glu52-lys184
	GLNTKYTKSLALQPH	HLA-DRB1*01:01	5V4N	-7.5	2.3e ⁻⁰⁵	Gln8-ser193,gln8-thr194,asn61-thr194