



Protein	Aa start	Aa end	Length (aa)	Peptide	HLA Allele x <sub>1</sub>	ic50 (nM) x <sub>1</sub>	HLA Allele x <sub>2</sub>	ic50 (nM) x <sub>2</sub>	HLA Allele x <sub>3</sub>	ic50 (nM) x <sub>3</sub>	HLA Allele x <sub>4</sub>	ic50 (nM) x <sub>4</sub>	HLA Allele x <sub>5</sub>	ic50 (nM) x <sub>5</sub>
Agnoprotein	1	8	8	MVLRQLSR	HLA-A*31:01	39.00	HLA-A*33:01	49.00						
Agnoprotein	1	12	12	MVLRQLSRQASV	HLA-A*02:06	13.00	HLA-A*68:02	46.00						
Agnoprotein	1	13	13	MVLRQLSRQASVK	HLA-A*03:01	32.00	HLA-A*11:01	35.00						
Agnoprotein	1	14	14	MVLRQLSRQASVKV	HLA-A*02:06	18.00								
Agnoprotein	4	12	9	RQLSRQASV	HLA-A*02:06	17.00								
Agnoprotein	4	13	10	RQLSRQASVK	HLA-A*03:01	49.00								
Agnoprotein	4	16	13	RQLSRQASVKVGK	HLA-A*31:01	33.00	HLA-B*27:05	48.00						
Agnoprotein	6	13	8	LSRQASVK	HLA-A*30:01	18.00								
Agnoprotein	6	16	11	LSRQASVKVGK	HLA-A*30:01	16.00								
Agnoprotein	6	18	13	LSRQASVKVGKTW	HLA-B*57:01	15.00	HLA-B*58:01	24.00						
Agnoprotein	8	16	9	RQASVKVGK	HLA-A*31:01	48.00								
Agnoprotein	8	18	11	RQASVKVGKTW	HLA-B*58:01	44.00								
Agnoprotein	9	18	10	QASVKVGKTW	HLA-B*58:01	17.00								
Agnoprotein	10	18	9	ASVKVGKTW	HLA-B*57:01	17.00	HLA-B*58:01	11.00						
Agnoprotein	11	22	12	SVKVGKWTGTGK	HLA-A*30:01	19.00								
Agnoprotein	11	23	13	SVKVGKWTGTGKK	HLA-A*30:01	45.00								
Agnoprotein	14	27	14	VGKTWTGTTKKRAQR	HLA-A*31:01	47.00								
Agnoprotein	16	23	8	KTWTGTTK	HLA-A*11:01	30.00								
Agnoprotein	16	24	9	KTWTGTTKKR	HLA-A*31:01	41.00								
Agnoprotein	16	27	12	KTWTGTTKKRAQR	HLA-A*31:01	11.00								
Agnoprotein	16	28	13	KTWTGTTKKRAQRI	HLA-A*32:01	31.00								
Agnoprotein	16	29	14	KTWTGTTKKRAQRIF	HLA-A*32:01	12.00	HLA-B*57:01	39.00	HLA-B*58:01	39.00				
Agnoprotein	20	27	8	GTTKKRAQR	HLA-A*31:01	16.00								
Agnoprotein	20	30	11	GTTKKRAQRIFI	HLA-A*30:01	16.00								
Agnoprotein	20	32	13	GTTKKRAQRIFIFI	HLA-A*30:01	17.00								
Agnoprotein	22	30	9	KKRAQRIFI	HLA-A*30:01	8.00								
Agnoprotein	22	32	11	KKRAQRIFIFI	HLA-A*30:01	10.00								
Agnoprotein	23	31	9	KRAQRIFIF	HLA-B*27:05	40.00								
Agnoprotein	23	32	10	KRAQRIFIFI	HLA-B*27:05	26.00								
Agnoprotein	23	35	13	KRAQRIFIFILEL	HLA-B*27:05	35.00								

Agnoprotein	23	36	14	KRAQRIFILELL	HLA-B*27:05	34.00				
Agnoprotein	24	31	8	RAQRIFIF	HLA-B*58:01	41.00				
Agnoprotein	24	32	9	RAQRIFIFI	HLA-A*30:01	39.00	HLA-C*12:03	46.00		
Agnoprotein	25	32	8	AQRIFIFI	HLA-A*30:01	19.00				
Agnoprotein	26	33	8	QRIFIFIL	HLA-B*39:01	27.00				
Agnoprotein	26	35	10	QRIFIFILEL	HLA-B*27:05	42.00				
Agnoprotein	26	37	12	QRIFIFILELLL	HLA-B*27:05	46.00				
Agnoprotein	27	39	13	RIFIFILELLEF	HLA-A*32:01	12.00				
Agnoprotein	28	36	9	IFIFILELL	HLA-A*23:01	41.00				
Agnoprotein	28	39	12	IFIFILELLEF	HLA-A*23:01	13.00	HLA-A*29:02	21.00		
Agnoprotein	28	41	14	IFIFILELLEFCR	HLA-A*31:01	27.00	HLA-A*33:01	14.00	HLA-A*68:01	16.00
Agnoprotein	29	41	13	FIFILELLEFCR	HLA-A*33:01	33.00	HLA-A*68:01	7.00		
Agnoprotein	30	41	12	IFILELLEFCR	HLA-A*33:01	34.00				
Agnoprotein	31	39	9	FILELLEF	HLA-A*02:06	12.00	HLA-A*29:02	48.00		
Agnoprotein	31	41	11	FILELLEFCR	HLA-A*33:01	40.00	HLA-A*68:01	44.00		
Agnoprotein	33	46	14	LELLEFCRGEDSV	HLA-B*40:02	40.00				
Agnoprotein	34	41	8	ELLEFCR	HLA-A*33:01	15.00				
Agnoprotein	35	46	12	LLLEFCRGEDSV	HLA-A*02:01	12.00	HLA-A*02:06	9.00		
Agnoprotein	44	56	13	DSVDGKNKSTTAL	HLA-C*03:03	50.00				
Agnoprotein	49	60	12	KNKSTTALPAVK	HLA-A*30:01	38.00				
Agnoprotein	52	59	8	STTALPAV	HLA-A*02:06	44.00	HLA-A*68:02	29.00		
Agnoprotein	52	60	9	STTALPAVK	HLA-A*11:01	29.00				
Agnoprotein	52	63	12	STTALPAVKDSV	HLA-A*68:02	12.00				
Agnoprotein	53	60	8	TTALPAVK	HLA-A*11:01	33.00	HLA-A*68:01	19.00		
Agnoprotein	53	63	11	TTALPAVKDSV	HLA-A*68:02	5.00				
Agnoprotein	53	64	12	TTALPAVKDSVK	HLA-A*68:01	20.00				
Agnoprotein	54	63	10	TALPAVKDSV	HLA-C*03:03	47.00	HLA-C*12:03	28.00		
VP1	2	14	13	APTKRKGECPGAA	HLA-B*07:02	27.00				
VP1	9	22	14	ECPGAAPKKPKPEV	HLA-A*68:02	29.00				
VP1	12	22	11	GAAPKKPKPEV	HLA-C*03:03	40.00				
VP1	14	22	9	APKKPKPEV	HLA-B*07:02	22.00				

VP1	22	29	8	VQVPKLLI	HLA-A*02:06	24.00							
VP1	22	33	12	VQVPKLLIKGGV	HLA-A*02:06	24.00							
VP1	22	35	14	VQVPKLLIKGGVEV	HLA-A*02:06	7.00							
VP1	27	35	9	LLIKGGVEV	HLA-A*02:01	25.00	HLA-A*02:06		15.00				
VP1	27	36	10	LLIKGGVEVL	HLA-C*03:03	14.00							
VP1	27	38	12	LLIKGGVEVLEV	HLA-A*02:01	16.00	HLA-A*02:06		18.00				
VP1	34	42	9	EVLEVKTGV	HLA-A*68:02	7.00							
VP1	34	45	12	EVLEVKTGVDAI	HLA-A*68:02	28.00							
VP1	37	48	12	EVKTGVDAITEV	HLA-A*68:02	23.00							
VP1	40	52	13	TGVDAITEVECFL	HLA-C*03:03	21.00							
VP1	41	48	8	GVDAITEV	HLA-A*02:06	29.00							
VP1	43	52	10	DAITEVECFL	HLA-C*03:03	38.00							
VP1	46	56	11	TEVECFLNPEM	HLA-B*40:02	22.00							
VP1	48	56	9	VECFLNPEM	HLA-B*40:02	33.00							
VP1	56	66	11	MGDPDENLRGF	HLA-C*05:01	35.00							
VP1	60	68	9	DENLRGFSL	HLA-B*18:01	26.00							
VP1	62	69	8	NLRGFSLK	HLA-A*03:01	47.00	HLA-A*30:01		47.00				
VP1	70	83	14	LSAENDFSSDSPER	HLA-A*68:01	35.00							
VP1	72	85	14	AENDFSSDSPERKM	HLA-B*44:02	34.00							
VP1	76	83	8	FSSDSPER	HLA-A*68:01	19.00							
VP1	76	85	10	FSSDSPERKM	HLA-C*03:03	7.00	HLA-C*12:03		34.00				
VP1	76	86	11	FSSDSPERKML	HLA-C*03:03	8.00	HLA-C*12:03		17.00				
VP1	76	89	14	FSSDSPERKMLPCY	HLA-A*01:01	20.00	HLA-B*35:01		24.00				
VP1	77	89	13	SSDSPERKMLPCY	HLA-C*05:01	42.00							
VP1	84	92	9	KMLPCYSTA	HLA-A*02:01	22.00	HLA-A*02:06		14.00				
VP1	84	93	10	KMLPCYSTAR	HLA-A*31:01	4.00							
VP1	84	94	11	KMLPCYSTARI	HLA-A*02:01	46.00							
VP1	84	96	13	KMLPCYSTARIPL	HLA-A*02:01	9.00	HLA-A*02:06	9.00	HLA-A*32:01	33.00	HLA-C*14:02	22.00	
VP1	85	94	10	MLPCYSTARI	HLA-C*14:02	34.00							
VP1	85	96	12	MLPCYSTARIPL	HLA-A*02:01	18.00	HLA-A*02:06	36.00	HLA-C*14:02	12.00			
VP1	86	96	11	LPCYSTARIPL	HLA-B*07:02	27.00	HLA-B*35:01	45.00					

VP1	88	96	9	CYSTARIPL	HLA-C*14:02	7.00				
VP1	88	99	12	CYSTARIPLPNL	HLA-C*14:02	30.00				
VP1	89	96	8	YSTAR IPL	HLA-C*03:03	6.00	HLA-C*14:02	34.00		
VP1	89	99	11	YSTAR IPLPNL	HLA-C*03:03	22.00				
VP1	100	111	12	NEDLTCGNLLMW	HLA-B*44:02	40.00				
VP1	103	111	9	LTCGNLLMW	HLA-B*57:01	33.00	HLA-B*58:01	22.00		
VP1	107	114	8	NLLMWEAV	HLA-A*02:06	24.00				
VP1	107	116	10	NLLMWEAVTV	HLA-A*02:01	25.00				
VP1	107	120	14	NLLMWEAVTVQTEV	HLA-A*02:01	15.00	HLA-A*02:06	49.00		
VP1	108	116	9	LLMWEAVTV	HLA-A*02:01	9.00	HLA-A*02:06	14.00		
VP1	108	120	13	LLMWEAVTVQTEV	HLA-A*02:01	6.00	HLA-A*02:06	10.00		
VP1	108	121	14	LLMWEAVTVQTEVI	HLA-A*02:01	49.00				
VP1	109	116	8	LMWEAVTV	HLA-A*02:01	47.00	HLA-A*02:06	5.00	HLA-C*12:03	29.00
VP1	109	120	12	LMWEAVTVQTEV	HLA-A*02:01	4.00	HLA-A*02:06	4.00		
VP1	109	121	13	LMWEAVTVQTEVI	HLA-A*02:01	19.00	HLA-C*12:03	47.00		
VP1	111	121	11	WEAVTVQTEVI	HLA-B*40:01	34.00				
VP1	111	123	13	WEAVTVQTEVIGI	HLA-B*40:01	36.00				
VP1	112	120	9	EAVTVQTEV	HLA-A*68:02	7.00				
VP1	112	123	12	EAVTVQTEVIGI	HLA-A*68:02	20.00				
VP1	114	126	13	VTVQTEVIGITSM	HLA-C*03:03	39.00				
VP1	114	127	14	VTVQTEVIGITSML	HLA-C*03:03	32.00				
VP1	116	123	8	VQTEVIGI	HLA-A*02:06	15.00				
VP1	116	127	12	VQTEVIGITSML	HLA-A*02:06	25.00				
VP1	116	129	14	VQTEVIGITSMLNL	HLA-A*02:06	39.00				
VP1	118	127	10	TEVIGITSML	HLA-B*40:01	36.00				
VP1	118	129	12	TEVIGITSMLNL	HLA-B*40:01	19.00				
VP1	119	126	8	EVIGITSM	HLA-A*25:01	23.00	HLA-A*26:01	3.00	HLA-A*68:02	17.00
VP1	119	127	9	EVIGITSML	HLA-A*26:01	4.00	HLA-A*68:02	3.00		
VP1	119	129	11	EVIGITSMLNL	HLA-A*26:01	10.00	HLA-A*68:02	7.00		
VP1	119	130	12	EVIGITSMLNLH	HLA-A*26:01	15.00				
VP1	119	131	13	EVIGITSMLNLHA	HLA-A*68:02	8.00				

VP1	123	135	13	ITSMNLNLHAGSQK	HLA-A*11:01	22.00	HLA-A*68:01	33.00											
VP1	124	135	12	TSMLNLHAGSQK	HLA-A*11:01	17.00	HLA-A*68:01	45.00											
VP1	124	136	13	TSMLNLHAGSQKV	HLA-C*15:02	37.00													
VP1	125	136	12	SMLNLHAGSQKV	HLA-A*02:01	19.00	HLA-A*02:06	17.00											
VP1	126	135	10	MLNLHAGSQK	HLA-A*03:01	20.00													
VP1	135	143	9	KVHEHGGGK	HLA-A*30:01	4.00													
VP1	135	145	11	KVHEHGGGKPI	HLA-A*30:01	23.00	HLA-C*12:03	41.00	HLA-C*14:02	29.00									
VP1	137	145	9	HEHGGGKPI	HLA-B*40:01	12.00	HLA-B*40:02	21.00											
VP1	143	155	13	KPIQGSNFHFFAV	HLA-B*07:02	17.00													
VP1	145	152	8	IQGSNFHF	HLA-B*15:01	33.00													
VP1	145	153	9	IQGSNFHFF	HLA-A*23:01	34.00	HLA-A*24:02	32.00	HLA-B*15:01	34.00									
VP1	147	155	9	GSNFHFFAV	HLA-A*02:06	43.00													
VP1	148	155	8	SNFHFFAV	HLA-A*68:02	48.00													
VP1	149	160	12	NFHFFAVGGEPL	HLA-C*14:02	18.00													
VP1	150	160	11	FHFFAVGGEPL	HLA-B*39:01	12.00	HLA-C*03:03	16.00	HLA-C*14:02	9.00									
VP1	150	162	13	FHFFAVGGEPLEM	HLA-B*39:01	42.00	HLA-C*06:02	25.00	HLA-C*07:01	13.00	HLA-C*14:02	30.00							
VP1	151	160	10	HFFAVGGEPL	HLA-C*14:02	6.00													
VP1	151	162	12	HFFAVGGEPLEM	HLA-C*14:02	20.00													
VP1	152	160	9	FFAVGGEPL	HLA-C*03:03	5.00	HLA-C*14:02	7.00											
VP1	152	162	11	FFAVGGEPLEM	HLA-C*03:03	40.00	HLA-C*14:02	35.00											
VP1	153	160	8	FAVGGEPL	HLA-A*02:06	36.00	HLA-B*35:01	29.00	HLA-C*03:03	1.00	HLA-C*12:03	17.00							
VP1	153	162	10	FAVGGEPLEM	HLA-B*35:01	46.00	HLA-C*03:03	2.00	HLA-C*12:03	24.00									
VP1	153	163	11	FAVGGEPLEMQ	HLA-C*03:03	25.00													
VP1	153	165	13	FAVGGEPLEMQGV	HLA-A*02:06	10.00	HLA-C*03:03	3.00	HLA-C*12:03	37.00									
VP1	153	166	14	FAVGGEPLEMQGVL	HLA-C*03:03	1.00	HLA-C*12:03	22.00											
VP1	158	169	12	EPLEMQGVLMNY	HLA-B*35:01	31.00													
VP1	158	170	13	EPLEMQGVLMNYR	HLA-A*33:01	27.00													
VP1	160	167	8	LEMQGVLM	HLA-B*40:01	39.00													
VP1	160	169	10	LEMQGVLMNY	HLA-B*15:01	23.00	HLA-B*18:01	24.00											
VP1	160	173	14	LEMQGVLMNYRSKY	HLA-B*18:01	14.00	HLA-B*44:02	33.00	HLA-B*44:03	38.00									
VP1	161	170	10	EMQGVLMNYR	HLA-A*31:01	42.00	HLA-A*33:01	12.00	HLA-A*68:01	24.00									

[illegible]

VP1	202	210	9	NAYPVECWV	HLA-C*12:03	36.00		
VP1	202	215	14	NAYPVECWVPDPSR	HLA-A*68:01	13.00		
VP1	204	212	9	YPVECWVPD	HLA-B*35:01	39.00		
VP1	204	214	11	YPVECWVPDPS	HLA-B*35:01	15.00		
VP1	210	222	13	VPDPSRNENARYF	HLA-C*05:01	11.00		
VP1	214	222	9	SRNENARYF	HLA-C*06:02	7.00	HLA-C*07:01	9.00
VP1	214	225	12	SRNENARYFGTF	HLA-C*06:02	50.00		
VP1	220	231	12	RYFGTFTGGENV	HLA-C*14:02	14.00		
VP1	221	234	14	YFGTFTGGENVPPV	HLA-C*14:02	27.00		
VP1	222	235	14	FGTFTGGENVPPVL	HLA-C*03:03	36.00		
VP1	224	234	11	TFTGGENVPPV	HLA-C*14:02	13.00		
VP1	224	235	12	TFTGGENVPPVL	HLA-C*14:02	30.00		
VP1	225	234	10	FTGGENVPPV	HLA-A*02:01	36.00	HLA-A*02:06	15.00
VP1	225	235	11	FTGGENVPPVL	HLA-C*03:03	37.00		
VP1	225	237	13	FTGGENVPPVLHV	HLA-A*02:06	35.00	HLA-C*12:03	44.00
VP1	228	235	8	GENVPPVL	HLA-B*40:01	13.00		
VP1	230	237	8	NVPPVLHV	HLA-A*02:06	27.00	HLA-A*68:02	12.00
VP1	230	241	12	NVPPVLHVTNTA	HLA-A*68:02	23.00		
VP1	235	245	11	LHVTNTATTVL	HLA-B*39:01	15.00		
VP1	235	246	12	LHVTNTATTVLL	HLA-B*39:01	25.00		
VP1	237	244	8	VTNTATTV	HLA-C*15:02	35.00		
VP1	239	246	8	NTATTVLL	HLA-A*68:02	11.00		
VP1	239	251	13	NTATTVLLDEQGV	HLA-A*68:02	14.00		
VP1	242	251	10	TTVLLDEQGV	HLA-A*68:02	36.00		
VP1	242	254	13	TTVLLDEQGVGPL	HLA-A*68:02	19.00	HLA-C*03:03	50.00
VP1	244	251	8	VLLDEQGV	HLA-A*02:06	14.00		
VP1	244	254	11	VLLDEQGVGPL	HLA-C*03:03	20.00		
VP1	245	254	10	LLDEQGVGPL	HLA-C*05:01	6.00	HLA-C*08:02	39.00
VP1	250	261	12	GVGPLCKADSLY	HLA-A*29:02	24.00		
VP1	256	267	12	KADSLYVSAADI	HLA-C*05:01	50.00		
VP1	259	267	9	SLYVSAADI	HLA-C*14:02	29.00		



VP1	259	270	12	SLYVSAADICGL	HLA-C*14:02	25.00		
VP1	260	267	8	LYVSAADI	HLA-C*14:02	16.00		
VP1	260	270	11	LYVSAADICGL	HLA-C*14:02	11.00		
VP1	260	271	12	LYVSAADICGLF	HLA-A*23:01	24.00	HLA-C*14:02	32.00
VP1	261	270	10	YVSAADICGL	HLA-A*02:06	40.00	HLA-C*03:03	14.00
VP1	261	271	11	YVSAADICGLF	HLA-B*35:01	18.00		
VP1	262	270	9	VSAADICGL	HLA-C*03:03	28.00		
VP1	263	270	8	SAADICGL	HLA-C*03:03	8.00		
VP1	264	271	8	AADICGLF	HLA-C*05:01	5.00		
VP1	268	280	13	CGLFTNSSGTQQW	HLA-B*58:01	34.00		
VP1	271	281	11	FTNSSGTQQWR	HLA-A*68:01	17.00		
VP1	271	283	13	FTNSSGTQQWRGL	HLA-C*03:03	38.00		
VP1	273	280	8	NSSGTQQW	HLA-B*58:01	12.00		
VP1	274	286	13	SSGTQQWRGLARY	HLA-A*30:02	31.00		
VP1	276	288	13	GTQQWRGLARYFK	HLA-A*11:01	18.00	HLA-A*31:01	50.00
VP1	277	286	10	TQQWRGLARY	HLA-B*15:01	34.00		
VP1	277	288	12	TQQWRGLARYFK	HLA-A*11:01	22.00		
VP1	278	289	12	QQWRGLARYFKI	HLA-A*02:06	29.00		
VP1	281	288	8	RGLARYFK	HLA-A*30:01	18.00	HLA-A*31:01	20.00
VP1	281	290	10	RGLARYFKIR	HLA-A*31:01	38.00		
VP1	281	292	12	RGLARYFKIRLR	HLA-A*31:01	17.00		
VP1	281	294	14	RGLARYFKIRLRKR	HLA-A*31:01	23.00		
VP1	282	293	12	GLARYFKIRLRK	HLA-A*03:01	31.00		
VP1	283	290	8	LARYFKIR	HLA-A*31:01	37.00		
VP1	283	292	10	LARYFKIRLR	HLA-A*31:01	19.00		
VP1	283	293	11	LARYFKIRLRK	HLA-A*30:01	14.00		
VP1	283	294	12	LARYFKIRLRKR	HLA-A*31:01	33.00		
VP1	284	292	9	ARYFKIRLR	HLA-B*27:05	35.00		
VP1	284	293	10	ARYFKIRLRK	HLA-B*27:05	38.00		
VP1	284	296	13	ARYFKIRLRKRSV	HLA-C*06:02	43.00	HLA-C*07:01	33.00
VP1	285	292	8	RYFKIRLR	HLA-A*31:01	5.00		

VP1	285	293	9	RYFKIRLRK	HLA-A*30:01	10.00	HLA-A*31:01	15.00		
VP1	285	294	10	RYFKIRLRKR	HLA-A*31:01	6.00				
VP1	285	296	12	RYFKIRLRKRSV	HLA-C*14:02	27.00				
VP1	285	297	13	RYFKIRLRKRSVK	HLA-A*30:01	12.00	HLA-A*31:01	11.00		
VP1	286	294	9	YFKIRLRKR	HLA-A*31:01	35.00	HLA-A*33:01	15.00		
VP1	286	296	11	YFKIRLRKRSV	HLA-B*08:01	24.00				
VP1	288	296	9	KIRLRKRSV	HLA-A*30:01	15.00	HLA-B*08:01	39.00		
VP1	288	297	10	KIRLRKRSVK	HLA-A*03:01	34.00				
VP1	288	300	13	KIRLRKRSVKNPY	HLA-A*30:01	17.00				
VP1	290	297	8	RLRKRSVK	HLA-A*03:01	24.00	HLA-A*30:01	4.00	HLA-A*31:01	44.00
VP1	290	300	11	RLRKRSVKNPY	HLA-A*30:01	20.00				
VP1	290	302	13	RLRKRSVKNPYPI	HLA-A*30:01	13.00	HLA-A*32:01	25.00	HLA-B*08:01	17.00
VP1	290	303	14	RLRKRSVKNPYPIS	HLA-A*30:01	26.00				
VP1	294	302	9	RSVKNPYPI	HLA-A*32:01	25.00	HLA-B*58:01	44.00	HLA-C*15:02	24.00
VP1	294	304	11	RSVKNPYPISF	HLA-B*58:01	15.00				
VP1	294	306	13	RSVKNPYPISFLL	HLA-B*58:01	26.00	HLA-C*15:02	30.00		
VP1	295	302	8	SVKNPYPI	HLA-A*30:01	28.00				
VP1	295	305	11	SVKNPYPISFL	HLA-A*30:01	19.00				
VP1	295	306	12	SVKNPYPISFLL	HLA-A*30:01	24.00				
VP1	298	305	8	NPYPISFL	HLA-C*12:03	28.00				
VP1	298	306	9	NPYPISFLL	HLA-B*35:01	40.00	HLA-B*39:01	34.00	HLA-B*53:01	17.00
VP1	298	310	13	NPYPISFLLSDLI	HLA-B*53:01	27.00	HLA-C*12:03	29.00		
VP1	299	306	8	PYPISFLL	HLA-C*14:02	36.00				
VP1	299	309	11	PYPISFLLSDL	HLA-C*14:02	22.00				
VP1	299	310	12	PYPISFLLSDLI	HLA-C*14:02	39.00				
VP1	300	309	10	YPISFLLSDL	HLA-B*35:01	34.00				
VP1	300	310	11	YPISFLLSDLI	HLA-B*53:01	13.00	HLA-C*12:03	29.00		
VP1	302	312	11	ISFLLSDLINR	HLA-A*68:01	21.00				
VP1	302	313	12	ISFLLSDLINRR	HLA-A*31:01	43.00	HLA-A*68:01	23.00		
VP1	304	317	14	FLLSDLINRRTQRV	HLA-A*02:01	4.00	HLA-A*02:06	4.00		
VP1	305	317	13	LLSDLINRRTQRV	HLA-A*02:01	16.00	HLA-A*02:06	36.00		

VP1	308	316	9	DLINRRRTQR	HLA-A*33:01	15.00		
VP1	309	316	8	LINRRRTQR	HLA-A*31:01	23.00		
VP1	312	325	14	RRTQRVDGQPMYGM	HLA-B*27:05	36.00		
VP1	313	322	10	RTQRVDGQPM	HLA-C*15:02	44.00		
VP1	313	323	11	RTQRVDGQPMY	HLA-A*30:02	35.00		
VP1	314	322	9	TQRVDGQPM	HLA-B*15:01	36.00		
VP1	316	323	8	RVDGQPMY	HLA-C*05:01	9.00		
VP1	316	325	10	RVDGQPMYGM	HLA-C*05:01	14.00		
VP1	316	329	14	RVDGQPMYGMESQV	HLA-C*05:01	11.00		
VP1	319	332	14	GQPMYGMESQVEEV	HLA-A*02:06	36.00		
VP1	322	329	8	MYGMESQV	HLA-C*14:02	28.00		
VP1	322	332	11	MYGMESQVEEV	HLA-C*14:02	10.00		
VP1	322	334	13	MYGMESQVEEVRV	HLA-C*14:02	33.00		
VP1	322	335	14	MYGMESQVEEVRVF	HLA-C*14:02	13.00		
VP1	323	332	10	YGMESQVEEV	HLA-C*12:03	42.00		
VP1	323	335	13	YGMESQVEEVRVF	HLA-B*15:01	34.00		
VP1	325	335	11	MESQVEEVRVF	HLA-B*44:03	36.00		
VP1	327	334	8	SQVEEVRV	HLA-A*02:06	14.00		
VP1	327	335	9	SQVEEVRVF	HLA-B*15:01	18.00		
VP1	331	340	10	EVRFVDGTER	HLA-A*68:01	29.00		
VP1	333	340	8	RVFDGTER	HLA-A*31:01	14.00	HLA-A*68:01	40.00
VP1	333	341	9	RVFDGTERL	HLA-C*12:03	29.00		
VP1	337	350	14	GTERLPGDPDMIRY	HLA-A*01:01	16.00		
VP1	347	360	14	MIRYIDKQGQLQTK	HLA-A*30:01	13.00		
VP1	349	357	9	RYIDKQGQL	HLA-C*14:02	47.00		
VP1	349	361	13	RYIDKQGQLQTKM	HLA-C*14:02	34.00		
VP1	349	362	14	RYIDKQGQLQTKML	HLA-C*14:02	18.00		
VP1	350	357	8	YIDKQGQL	HLA-C*05:01	11.00	HLA-C*08:02	46.00
VP1	350	359	10	YIDKQGQLQT	HLA-C*05:01	35.00		
VP1	350	361	12	YIDKQGQLQTKM	HLA-C*05:01	11.00		
VP1	350	362	13	YIDKQGQLQTKML	HLA-C*05:01	8.00	HLA-C*08:02	26.00

VP2	2	11	10	GAALALLGDL	HLA-C*03:03	47.00							
VP2	3	11	9	AALALLGDL	HLA-C*03:03	40.00							
VP2	3	15	13	AALALLGDLVASV	HLA-A*02:06	25.00							
VP2	4	15	12	ALALLGDLVASV	HLA-A*02:01	44.00							
VP2	5	15	11	LALLGDLVASV	HLA-C*12:03	39.00							
VP2	6	15	10	ALLGDLVASV	HLA-A*02:01	8.00	HLA-A*02:06	11.00					
VP2	6	18	13	ALLGDLVASVSEA	HLA-A*02:01	30.00	HLA-A*02:06	23.00					
VP2	6	19	14	ALLGDLVASVSEAA	HLA-A*02:06	24.00							
VP2	7	15	9	LLGDLVASV	HLA-A*02:01	10.00	HLA-A*02:06	19.00					
VP2	11	19	9	LVASVSEAA	HLA-A*68:02	19.00							
VP2	11	24	14	LVASVSEAAAATGF	HLA-B*15:01	32.00							
VP2	14	26	13	SVSEAAAATGFSV	HLA-A*02:06	7.00	HLA-A*68:02	12.00					
VP2	15	24	10	VSEAAAATGF	HLA-C*05:01	26.00							
VP2	16	24	9	SEAAAATGF	HLA-B*40:01	40.00	HLA-B*44:02	29.00	HLA-B*44:03	19.00	HLA-B*44:03	19.00	
VP2	16	26	11	SEAAAATGFSV	HLA-B*40:01	28.00	HLA-B*40:02	44.00					
VP2	16	29	14	SEAAAATGFSVAEI	HLA-B*40:01	38.00							
VP2	17	24	8	EAAAATGF	HLA-B*35:01	18.00							
VP2	17	25	9	EAAAATGFS	HLA-A*68:02	35.00							
VP2	17	26	10	EAAAATGFSV	HLA-A*68:02	3.00							
VP2	17	27	11	EAAAATGFSVA	HLA-A*68:02	16.00							
VP2	17	29	13	EAAAATGFSVAEI	HLA-A*68:02	4.00							
VP2	17	30	14	EAAAATGFSVAEIA	HLA-A*68:02	17.00							
VP2	18	26	9	AAAATGFSV	HLA-A*02:06	25.00							
VP2	18	29	12	AAAATGFSVAEI	HLA-C*03:03	25.00							
VP2	19	26	8	AAATGFSV	HLA-A*02:06	33.00							
VP2	19	29	11	AAATGFSVAEI	HLA-C*03:03	17.00							
VP2	25	34	10	SVAEIAAGEA	HLA-A*68:02	39.00							
VP2	25	35	11	SVAEIAAGEAA	HLA-A*68:02	14.00							
VP2	25	36	12	SVAEIAAGEAAA	HLA-A*02:06	47.00	HLA-A*68:02	23.00					
VP2	25	37	13	SVAEIAAGEAAAA	HLA-A*02:06	37.00	HLA-A*68:02	19.00					
VP2	25	38	14	SVAEIAAGEAAAAI	HLA-A*02:06	15.00	HLA-A*68:02	6.00					

VP2	27	35	9	AEIAAGEAA	HLA-B*40:02	35.00								
VP2	27	38	12	AEIAAGEAAAAI	HLA-B*40:01	5.00	HLA-B*40:02	24.00	HLA-B*44:02	26.00	HLA-B*44:03	22.00	HLA-B*44:03	22.00
VP2	27	40	14	AEIAAGEAAAAIEV	HLA-B*40:01	10.00	HLA-B*40:02	18.00	HLA-B*44:03	36.00	HLA-B*44:03	36.00		
VP2	28	35	8	EIAAGEAA	HLA-A*68:02	37.00								
VP2	28	36	9	EIAAGEAAA	HLA-A*68:02	45.00								
VP2	28	37	10	EIAAGEAAAA	HLA-A*68:02	37.00								
VP2	28	38	11	EIAAGEAAAAI	HLA-A*68:02	11.00								
VP2	28	40	13	EIAAGEAAAAIEV	HLA-A*68:02	7.00								
VP2	29	38	10	IAAGEAAAAI	HLA-C*03:03	3.00	HLA-C*12:03	20.00						
VP2	29	40	12	IAAGEAAAAIEV	HLA-C*03:03	12.00	HLA-C*12:03	38.00						
VP2	29	42	14	IAAGEAAAAIEVQI	HLA-C*03:03	10.00								
VP2	32	40	9	GEAAAAIEV	HLA-B*40:01	9.00								
VP2	32	42	11	GEAAAAIEVQI	HLA-B*40:01	12.00								
VP2	32	45	14	GEAAAAIEVQIASL	HLA-B*40:01	5.00	HLA-B*40:02	34.00						
VP2	33	40	8	EAAAAIEV	HLA-A*68:02	4.00								
VP2	33	42	10	EAAAAIEVQI	HLA-A*68:02	11.00								
VP2	33	45	13	EAAAAIEVQIASL	HLA-A*68:02	7.00	HLA-C*03:03	10.00						
VP2	33	46	14	EAAAAIEVQIASLA	HLA-A*68:02	9.00								
VP2	34	45	12	AAAAIEVQIASL	HLA-C*03:03	6.00								
VP2	35	45	11	AAAIEVQIASL	HLA-C*03:03	5.00								
VP2	36	45	10	AAIEVQIASL	HLA-C*03:03	5.00								
VP2	36	48	13	AAIEVQIASLATV	HLA-A*02:06	11.00	HLA-C*03:03	45.00	HLA-C*12:03	23.00				
VP2	38	45	8	IEVQIASL	HLA-B*40:01	13.00	HLA-C*03:03	32.00						
VP2	39	48	10	EVQIASLATV	HLA-A*68:02	20.00								
VP2	40	47	8	VQIASLAT	HLA-A*02:06	29.00								
VP2	40	48	9	VQIASLATV	HLA-A*02:01	23.00	HLA-A*02:06	2.00						
VP2	40	51	12	VQIASLATVEGI	HLA-A*02:06	6.00								
VP2	41	48	8	QIASLATV	HLA-A*02:06	32.00	HLA-A*68:02	26.00						
VP2	41	51	11	QIASLATVEGI	HLA-A*68:02	49.00								
VP2	45	58	14	LATVEGITSTSEAI	HLA-C*03:03	18.00								
VP2	46	58	13	ATVEGITSTSEAI	HLA-A*02:06	26.00								

VP2	53	61	9	STSEAIAAI	HLA-A*02:06	29.00	HLA-A*68:02	9.00						
VP2	53	63	11	STSEAIAAIGL	HLA-A*68:02	26.00								
VP2	55	63	9	SEAIAAIGL	HLA-B*40:01	6.00								
VP2	55	68	14	SEAIAAIGLTPQTY	HLA-B*18:01	30.00	HLA-B*44:02	23.00	HLA-B*44:03	30.00	HLA-B*44:03	30.00	HLA-C*03:03	15.00
VP2	56	63	8	EAIAAIGL	HLA-A*68:02	14.00								
VP2	56	68	13	EAIAAIGLTPQTY	HLA-A*26:01	48.00	HLA-B*35:01	11.00						
VP2	56	69	14	EAIAAIGLTPQTYA	HLA-A*68:02	13.00								
VP2	57	70	14	AIAAIGLTPQTYAV	HLA-A*02:01	33.00	HLA-A*02:06	12.00	HLA-A*68:02	29.00				
VP2	58	68	11	IAAIGLTPQTY	HLA-B*35:01	12.00	HLA-C*03:03	44.00	HLA-C*12:03	41.00				
VP2	58	70	13	IAAIGLTPQTYAV	HLA-A*02:06	42.00	HLA-C*03:03	15.00						
VP2	58	71	14	IAAIGLTPQTYAVI	HLA-C*03:03	5.00	HLA-C*12:03	29.00						
VP2	59	68	10	AAIGLTPQTY	HLA-B*15:01	42.00								
VP2	59	70	12	AAIGLTPQTYAV	HLA-A*02:06	20.00	HLA-C*03:03	39.00						
VP2	59	71	13	AAIGLTPQTYAVI	HLA-C*03:03	9.00								
VP2	62	70	9	GLTPQTYAV	HLA-A*02:01	15.00	HLA-A*02:06	25.00						
VP2	63	70	8	LTPQTYAV	HLA-A*68:02	36.00								
VP2	66	74	9	QTYAVIAGA	HLA-A*68:02	7.00								
VP2	66	78	13	QTYAVIAGAPGAI	HLA-A*68:02	12.00	HLA-C*12:03	50.00	HLA-C*14:02	20.00				
VP2	67	78	12	TYAVIAGAPGAI	HLA-C*14:02	10.00								
VP2	68	76	9	YAVIAGAPG	HLA-C*03:03	17.00								
VP2	68	77	10	YAVIAGAPGA	HLA-C*03:03	18.00								
VP2	68	78	11	YAVIAGAPGAI	HLA-C*03:03	2.00	HLA-C*12:03	11.00						
VP2	68	79	12	YAVIAGAPGAIA	HLA-C*03:03	8.00								
VP2	68	80	13	YAVIAGAPGAIAG	HLA-C*03:03	46.00								
VP2	68	81	14	YAVIAGAPGAIAGF	HLA-B*35:01	18.00	HLA-C*03:03	2.00						
VP2	69	77	9	AVIAGAPGA	HLA-A*02:06	25.00								
VP2	69	81	13	AVIAGAPGAIAGF	HLA-B*15:01	45.00								
VP2	71	78	8	IAGAPGAI	HLA-C*03:03	37.00								
VP2	71	84	14	IAGAPGAIAGFAAL	HLA-C*03:03	3.00								
VP2	72	84	13	AGAPGAIAGFAAL	HLA-C*03:03	22.00								
VP2	73	84	12	GAPGAIAGFAAL	HLA-C*03:03	14.00								

VP2	74	84	11	APGAIAGFAAL	HLA-B*07:02	19.00						
VP2	76	84	9	GAIAGFAAL	HLA-A*02:06	26.00	HLA-C*03:03	2.00				
VP2	76	85	10	GAIAGFAALI	HLA-C*03:03	25.00						
VP2	76	88	13	GAIAGFAALIQTV	HLA-A*02:06	18.00	HLA-C*03:03	33.00	HLA-C*12:03	43.00		
VP2	77	84	8	AIAGFAAL	HLA-A*02:06	39.00						
VP2	77	88	12	AIAGFAALIQTV	HLA-A*02:01	47.00	HLA-A*02:06	18.00				
VP2	78	88	11	IAGFAALIQTV	HLA-C*12:03	35.00						
VP2	81	88	8	FAALIQTV	HLA-A*02:06	28.00	HLA-A*68:02	17.00	HLA-C*03:03	6.00	HLA-C*12:03	6.00
VP2	81	91	11	FAALIQTVSGI	HLA-A*68:02	21.00	HLA-C*03:03	5.00	HLA-C*12:03	41.00		
VP2	81	94	14	FAALIQTVSGISSL	HLA-A*68:02	39.00	HLA-C*03:03	2.00	HLA-C*12:03	20.00		
VP2	82	94	13	AALIQTVSGISSL	HLA-C*03:03	6.00						
VP2	83	94	12	ALIQTVSGISSL	HLA-A*02:01	39.00						
VP2	86	97	12	QTVSGISSLAQV	HLA-A*68:02	18.00						
VP2	86	99	14	QTVSGISSLAQVGY	HLA-A*26:01	39.00						
VP2	87	94	8	TVSGISSL	HLA-A*68:02	16.00						
VP2	87	95	9	TVSGISSLA	HLA-A*68:02	8.00						
VP2	87	97	11	TVSGISSLAQV	HLA-A*68:02	6.00						
VP2	87	99	13	TVSGISSLAQVGY	HLA-A*29:02	25.00						
VP2	87	100	14	TVSGISSLAQVGYK	HLA-A*11:01	17.00	HLA-A*68:01	11.00				
VP2	88	100	13	VSGISSLAQVGYK	HLA-A*11:01	38.00						
VP2	91	100	10	ISSLAQVGYK	HLA-A*11:01	40.00						
VP2	91	101	11	ISSLAQVGYKF	HLA-B*58:01	40.00						
VP2	92	100	9	SSLAQVGYK	HLA-A*03:01	42.00	HLA-A*11:01	14.00	HLA-A*30:01	22.00		
VP2	92	105	14	SSLAQVGYKFFDDW	HLA-B*58:01	20.00						
VP2	93	100	8	SLAQVGYK	HLA-A*03:01	37.00	HLA-A*11:01	29.00				
VP2	94	102	9	LAQVGYKFF	HLA-C*03:03	47.00						
VP2	99	112	14	YKFFDDWDHKVSTV	HLA-C*12:03	42.00						
VP2	100	112	13	KFFDDWDHKVSTV	HLA-C*12:03	33.00						
VP2	101	109	9	FFDDWDHKV	HLA-C*12:03	47.00						
VP2	101	112	12	FFDDWDHKVSTV	HLA-C*12:03	14.00						
VP2	107	114	8	HKVSTVGL	HLA-B*39:01	31.00						

VP2	108	115	8	KVSTVGLY	HLA-A*29:02	38.00	HLA-A*30:02	17.00	HLA-A*80:01	19.00		
VP2	110	120	11	STVGLYQQSGM	HLA-A*26:01	38.00						
VP2	110	122	13	STVGLYQQSGMAL	HLA-C*03:03	20.00						
VP2	113	122	10	GLYQQSGMAL	HLA-C*03:03	45.00						
VP2	114	122	9	LYQQSGMAL	HLA-C*14:02	4.00						
VP2	114	124	11	LYQQSGMALEL	HLA-C*14:02	5.00						
VP2	114	125	12	LYQQSGMALELF	HLA-A*23:01	18.00	HLA-A*24:02	30.00	HLA-C*14:02	16.00		
VP2	115	122	8	YQQSGMAL	HLA-A*02:06	25.00	HLA-B*15:01	37.00	HLA-B*39:01	8.00	HLA-C*03:03	40.00
VP2	115	124	10	YQQSGMALEL	HLA-B*15:01	25.00	HLA-B*39:01	13.00				
VP2	115	125	11	YQQSGMALELF	HLA-B*15:01	22.00						
VP2	116	124	9	QQSGMALEL	HLA-B*39:01	22.00						
VP2	116	125	10	QQSGMALELF	HLA-B*15:01	33.00						
VP2	119	130	12	GMALELFPDEY	HLA-A*29:02	14.00						
VP2	119	131	13	GMALELFPDEYY	HLA-A*29:02	10.00						
VP2	120	130	11	MALELFPDEY	HLA-B*35:01	2.00	HLA-C*12:03	16.00				
VP2	120	131	12	MALELFPDEYY	HLA-A*29:02	28.00	HLA-B*35:01	5.00	HLA-B*53:01	27.00	HLA-C*12:03	12.00
VP2	120	133	14	MALELFPDEYYDI	HLA-C*03:03	29.00	HLA-C*12:03	31.00				
VP2	122	133	12	LELFPDEYYDI	HLA-B*40:02	48.00						
VP2	122	134	13	LELFPDEYYDIL	HLA-B*40:01	22.00	HLA-B*40:02	24.00				
VP2	124	131	8	LFNPDEYY	HLA-A*29:02	25.00						
VP2	128	141	14	DEYYDILFPGVNTF	HLA-B*18:01	3.00						
VP2	129	138	10	EYYDILFPGV	HLA-C*14:02	16.00						
VP2	129	141	13	EYYDILFPGVNTF	HLA-A*23:01	20.00	HLA-C*14:02	6.00				
VP2	129	142	14	EYYDILFPGVNTFV	HLA-A*68:02	6.00	HLA-C*14:02	9.00				
VP2	130	138	9	YYDILFPGV	HLA-A*02:06	22.00	HLA-C*14:02	30.00				
VP2	130	141	12	YYDILFPGVNTF	HLA-A*24:02	33.00	HLA-C*14:02	7.00				
VP2	130	142	13	YYDILFPGVNTFV	HLA-A*02:06	38.00	HLA-C*14:02	14.00				
VP2	132	142	11	DILFPGVNTFV	HLA-A*68:02	40.00						
VP2	133	141	9	ILFPGVNTF	HLA-A*32:01	21.00	HLA-B*15:01	28.00	HLA-C*12:03	15.00		
VP2	133	142	10	ILFPGVNTFV	HLA-A*02:01	5.00	HLA-A*02:06	26.00	HLA-C*12:03	31.00		
VP2	133	145	13	ILFPGVNTFVNNI	HLA-A*02:01	12.00	HLA-C*12:03	14.00				



VP2	134	141	8	LFPGVNTF	HLA-C*14:02	31.00							
VP2	134	145	12	LFPGVNTFVNNI	HLA-C*14:02	40.00							
VP2	135	145	11	FPGVNTFVNNI	HLA-B*53:01	19.00							
VP2	135	147	13	FPGVNTFVNNIQY	HLA-B*35:01	4.00	HLA-B*53:01	15.00					
VP2	135	148	14	FPGVNTFVNNIQYL	HLA-B*53:01	41.00							
VP2	139	147	9	NTFVNNIQY	HLA-A*68:01	44.00							
VP2	139	148	10	NTFVNNIQYL	HLA-A*68:02	26.00							
VP2	139	151	13	NTFVNNIQYLDPR	HLA-A*33:01	34.00	HLA-A*68:01	6.00					
VP2	140	147	8	TFVNNIQY	HLA-A*29:02	35.00							
VP2	140	148	9	TFVNNIQYL	HLA-C*14:02	8.00							
VP2	141	148	8	FVNNIQYL	HLA-A*02:06	29.00	HLA-A*68:02	24.00	HLA-C*03:03	39.00	HLA-C*12:03	44.00	
VP2	141	151	11	FVNNIQYLDPR	HLA-A*31:01	33.00	HLA-A*68:01	12.00					
VP2	145	157	13	IQYLDPRHWGPSL	HLA-C*03:03	28.00							
VP2	146	157	12	QYLDPRHWGPSL	HLA-C*14:02	11.00							
VP2	146	158	13	QYLDPRHWGPSLF	HLA-A*23:01	30.00	HLA-C*14:02	35.00					
VP2	147	157	11	YLDPRHWGPSL	HLA-C*05:01	14.00							
VP2	147	158	12	YLDPRHWGPSLF	HLA-C*05:01	2.00							
VP2	147	159	13	YLDPRHWGPSLFA	HLA-A*02:01	14.00	HLA-A*02:06	13.00	HLA-C*05:01	31.00			
VP2	147	160	14	YLDPRHWGPSLFAT	HLA-A*02:01	25.00	HLA-A*02:06	13.00					
VP2	149	157	9	DPRHWGPSL	HLA-B*07:02	28.00							
VP2	154	165	12	GPSLFATISQAL	HLA-B*07:02	34.00							
VP2	155	166	12	PSLFATISQALW	HLA-B*58:01	46.00							
VP2	156	165	10	SLFATISQAL	HLA-A*02:01	35.00	HLA-C*14:02	22.00					
VP2	156	166	11	SLFATISQALW	HLA-B*58:01	41.00							
VP2	156	168	13	SLFATISQALWHV	HLA-A*02:01	5.00	HLA-A*02:06	5.00					
VP2	156	169	14	SLFATISQALWHVI	HLA-A*02:01	35.00							
VP2	157	165	9	LFATISQAL	HLA-C*03:03	44.00	HLA-C*14:02	30.00					
VP2	158	165	8	FATISQAL	HLA-C*03:03	2.00							
VP2	158	166	9	FATISQALW	HLA-B*53:01	10.00	HLA-B*58:01	7.00					
VP2	158	168	11	FATISQALWHV	HLA-A*68:02	39.00	HLA-C*03:03	31.00	HLA-C*12:03	40.00			
VP2	158	169	12	FATISQALWHVI	HLA-C*03:03	7.00	HLA-C*12:03	17.00					

VP2	158	170	13	FATISQALWHVIR	HLA-A*68:01	16.00				
VP2	159	166	8	ATISQALW	HLA-B*58:01	7.00				
VP2	159	168	10	ATISQALWHV	HLA-A*02:06	13.00				
VP2	159	170	12	ATISQALWHVIR	HLA-A*31:01	47.00				
VP2	160	168	9	TISQALWHV	HLA-A*02:01	40.00	HLA-A*02:06	7.00	HLA-A*68:02	23.00
VP2	160	170	11	TISQALWHVIR	HLA-A*68:01	35.00				
VP2	161	170	10	ISQALWHVIR	HLA-A*31:01	22.00				
VP2	162	169	8	SQALWHVI	HLA-A*02:06	37.00	HLA-B*39:01	33.00		
VP2	162	170	9	SQALWHVIR	HLA-A*31:01	23.00				
VP2	163	176	14	QALWHVIRDDIPSI	HLA-C*12:03	28.00				
VP2	164	176	13	ALWHVIRDDIPSI	HLA-A*02:01	17.00				
VP2	165	176	12	LWHVIRDDIPSI	HLA-C*14:02	48.00				
VP2	166	176	11	WHVIRDDIPSI	HLA-B*38:01	48.00				
VP2	169	181	13	IRDDIPSITSQEL	HLA-C*06:02	45.00	HLA-C*07:01	24.00		
VP2	173	181	9	IPSITSQEL	HLA-B*07:02	33.00				
VP2	177	190	14	TSQELQRRTERFFR	HLA-A*31:01	32.00	HLA-A*33:01	49.00	HLA-A*68:01	25.00
VP2	178	190	13	SQELQRRTERFFR	HLA-A*31:01	50.00				
VP2	180	187	8	ELQRRTER	HLA-A*33:01	39.00				
VP2	180	190	11	ELQRRTERFFR	HLA-A*33:01	9.00	HLA-A*68:01	43.00		
VP2	181	188	8	LQRRTERF	HLA-B*15:01	28.00				
VP2	181	189	9	LQRRTERFF	HLA-B*15:01	32.00				
VP2	181	190	10	LQRRTERFFR	HLA-A*31:01	19.00				
VP2	183	190	8	RRTERFFR	HLA-B*27:05	47.00				
VP2	184	195	12	RTERFFRDSLAR	HLA-A*31:01	33.00				
VP2	185	193	9	TERFFRDSL	HLA-B*40:02	34.00				
VP2	187	195	9	RFFRDSLAR	HLA-A*31:01	19.00				
VP2	187	196	10	RFFRDSLARF	HLA-A*23:01	32.00				
VP2	187	197	11	RFFRDSLARFL	HLA-C*14:02	44.00				
VP2	188	195	8	FFRDSLAR	HLA-A*33:01	24.00				
VP2	188	196	9	FFRDSLARF	HLA-C*14:02	35.00				
VP2	188	197	10	FFRDSLARFL	HLA-C*14:02	14.00				

VP2	189	197	9	FRDSLARFL	HLA-B*39:01	26.00	HLA-C*06:02	16.00	HLA-C*07:01	29.00
VP2	191	202	12	DSLARFLEETTW	HLA-B*58:01	38.00				
VP2	192	204	13	SLARFLEETTWTI	HLA-A*02:01	23.00	HLA-A*02:06	46.00	HLA-A*32:01	32.00
VP2	192	205	14	SLARFLEETTWIV	HLA-A*02:01	30.00	HLA-A*02:06	33.00		
VP2	196	204	9	FLEETTWTI	HLA-A*02:01	8.00	HLA-A*02:06	6.00		
VP2	196	205	10	FLEETTWIV	HLA-A*02:01	21.00	HLA-A*02:06	25.00		
VP2	196	207	12	FLEETTWIVNA	HLA-A*02:01	20.00	HLA-A*02:06	32.00		
VP2	196	209	14	FLEETTWIVNAPI	HLA-A*02:01	13.00	HLA-A*02:06	14.00		
VP2	197	204	8	LEETTWTI	HLA-B*40:01	42.00				
VP2	197	209	13	LEETTWIVNAPI	HLA-B*40:01	20.00				
VP2	199	207	9	ETTWIVNA	HLA-A*68:02	15.00				
VP2	199	209	11	ETTWIVNAPI	HLA-A*68:02	4.00				
VP2	199	212	14	ETTWIVNAPINFY	HLA-A*26:01	18.00	HLA-A*68:01	19.00		
VP2	200	207	8	TTWTIVNA	HLA-A*68:02	21.00				
VP2	200	209	10	TTWTIVNAPI	HLA-A*68:02	4.00	HLA-C*14:02	30.00		
VP2	200	211	12	TTWTIVNAPINF	HLA-A*32:01	47.00				
VP2	200	212	13	TTWTIVNAPINFY	HLA-A*11:01	48.00	HLA-A*29:02	12.00	HLA-A*30:02	36.00
VP2	201	209	9	TWTIVNAPI	HLA-C*14:02	37.00				
VP2	201	214	14	TWTIVNAPINFYNY	HLA-A*29:02	41.00				
VP2	202	209	8	WTIVNAPI	HLA-A*68:02	16.00				
VP2	202	214	13	WTIVNAPINFYNY	HLA-A*29:02	7.00	HLA-A*30:02	47.00		
VP2	202	215	14	WTIVNAPINFYNYI	HLA-A*68:02	28.00				
VP2	203	214	12	TIVNAPINFYNY	HLA-A*29:02	27.00				
VP2	203	215	13	TIVNAPINFYNYI	HLA-A*68:02	38.00				
VP2	204	212	9	IVNAPINFY	HLA-A*30:02	25.00				
VP2	204	215	12	IVNAPINFYNYI	HLA-A*68:02	29.00	HLA-C*12:03	30.00		
VP2	207	214	8	APINFYNY	HLA-B*35:01	36.00				
VP2	210	218	9	NFYNYIQQY	HLA-A*29:02	28.00	HLA-C*14:02	36.00		
VP2	210	219	10	NFYNYIQQYY	HLA-A*29:02	12.00	HLA-C*14:02	24.00		
VP2	210	222	13	NFYNYIQQYYSDL	HLA-C*14:02	11.00				
VP2	211	218	8	FYNYIQQY	HLA-A*29:02	30.00	HLA-C*14:02	33.00		

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VP2	240	248	9	RVHFGHTYS	HLA-A*30:01	24.00							
VP2	241	249	9	VHFGHTYSI	HLA-B*39:01	15.00	HLA-C*06:02	14.00	HLA-C*07:01	8.00	HLA-C*14:02	42.00	
VP2	245	255	11	HTYSIDDADSI	HLA-A*68:02	12.00	HLA-C*14:02	22.00	HLA-C*15:02	42.00			
VP2	245	258	14	HTYSIDDADSIEEV	HLA-A*68:02	3.00	HLA-C*12:03	45.00	HLA-C*15:02	28.00			
VP2	246	255	10	TYSIDDADSI	HLA-C*14:02	18.00							
VP2	246	258	13	TYSIDDADSIEEV	HLA-C*14:02	34.00							
VP2	247	255	9	YSIDDADSI	HLA-C*03:03	7.00	HLA-C*12:03	7.00	HLA-C*15:02	32.00			
VP2	247	258	12	YSIDDADSIEEV	HLA-A*02:06	13.00	HLA-A*68:02	20.00	HLA-C*03:03	17.00	HLA-C*12:03	6.00	HLA-C*15:02 22.00
VP2	248	258	11	SIDDADSIEEV	HLA-C*05:01	33.00							
VP2	251	261	11	DADSIEEVTQR	HLA-A*68:01	50.00							
VP2	253	261	9	DSIEEVTQR	HLA-A*68:01	17.00							
VP2	253	265	13	DSIEEVTQRMDLR	HLA-A*68:01	19.00							
VP2	257	265	9	EVTQRMDLR	HLA-A*33:01	37.00	HLA-A*68:01	12.00					
VP2	257	270	14	EVTQRMDLRNQSV	HLA-A*68:02	33.00							
VP2	260	270	11	QRMDLRNQSV	HLA-C*06:02	23.00	HLA-C*07:01	17.00					
VP2	266	275	10	NQQSVHSGEF	HLA-B*15:01	21.00							
VP2	267	275	9	QQSVHSGEF	HLA-B*15:01	24.00							
VP2	269	278	10	SVHSGEFIEK	HLA-A*11:01	22.00							
VP2	278	288	11	KTIAPGGANQR	HLA-A*31:01	37.00							
VP2	279	288	10	TIAPGGANQR	HLA-A*68:01	31.00							
VP2	280	293	14	IAPGGANQRTAPQW	HLA-B*58:01	48.00							
VP2	287	297	11	QRTAPQWMLPL	HLA-B*39:01	34.00							
VP2	288	297	10	RTAPQWMLPL	HLA-C*15:02	41.00							
VP2	288	298	11	RTAPQWMLPLL	HLA-A*30:01	44.00	HLA-B*58:01	44.00					
VP2	288	299	12	RTAPQWMLPLLL	HLA-B*58:01	30.00							
VP2	288	301	14	RTAPQWMLPLLLGL	HLA-A*02:06	40.00							
VP2	290	298	9	APQWMLPLL	HLA-B*07:02	29.00							
VP2	290	301	12	APQWMLPLLLGL	HLA-B*07:02	21.00							
VP2	293	301	9	WMLPLLLGL	HLA-A*02:01	9.00	HLA-A*02:06	6.00					
VP2	293	302	10	WMLPLLLGLY	HLA-A*29:02	37.00	HLA-A*80:01	45.00	HLA-B*15:01	28.00			
VP2	293	304	12	WMLPLLLGLYGT	HLA-A*02:01	29.00	HLA-A*02:06	19.00					

VP2	293	305	13	WMLPLLLGLYGTV	HLA-A*02:01	14.00	HLA-A*02:06	5.00		
VP2	294	302	9	MLPLLLGLY	HLA-A*29:02	20.00				
VP2	295	302	8	LPLLLGLY	HLA-B*35:01	14.00				
VP2	297	305	9	LLLGLYGTV	HLA-A*02:01	46.00	HLA-A*02:06	27.00		
VP2	297	308	12	LLLGLYGTVTPA	HLA-A*02:01	37.00	HLA-A*02:06	50.00		
VP2	297	309	13	LLLGLYGTVTPAL	HLA-A*02:01	19.00	HLA-A*02:06	34.00	HLA-C*03:03	24.00
VP2	300	308	9	GLYGTVTPA	HLA-A*02:01	24.00				
VP2	300	309	10	GLYGTVTPAL	HLA-A*02:01	20.00	HLA-C*03:03	24.00	HLA-C*14:02	24.00
VP2	300	312	13	GLYGTVTPALEAY	HLA-A*29:02	24.00	HLA-B*15:01	41.00		
VP2	301	309	9	LYGTVTPAL	HLA-C*14:02	8.00				
VP2	304	312	9	TVTPALEAY	HLA-B*35:01	17.00				
VP2	310	321	12	EAYEDGPNQKKR	HLA-A*68:01	28.00				
VP2	310	322	13	EAYEDGPNQKKRR	HLA-A*68:01	40.00				
VP2	310	323	14	EAYEDGPNQKKRRV	HLA-C*12:03	11.00				
VP2	317	325	9	NQKKRRVSR	HLA-A*31:01	17.00				
VP2	319	330	12	KKRRVSRGSSQK	HLA-A*30:01	12.00				
VP2	319	332	14	KKRRVSRGSSQKAK	HLA-A*30:01	19.00				
VP2	320	330	11	KRRVSRGSSQK	HLA-A*30:01	18.00				
VP2	320	332	13	KRRVSRGSSQKAK	HLA-A*30:01	27.00				
VP2	321	330	10	RRVSRGSSQK	HLA-B*27:05	36.00				
VP2	321	332	12	RRVSRGSSQKAK	HLA-B*27:05	42.00				
VP2	322	330	9	RVSRGSSQK	HLA-A*03:01	47.00	HLA-A*11:01	23.00	HLA-A*30:01	25.00
VP2	322	332	11	RVSRGSSQKAK	HLA-A*30:01	36.00				
VP2	322	335	14	RVSRGSSQKAKGTR	HLA-A*31:01	42.00				
VP2	323	330	8	VSRGSSQK	HLA-A*30:01	14.00				
VP2	328	335	8	SQKAKGTR	HLA-A*31:01	36.00				
VP2	330	338	9	KAKGTRASA	HLA-A*30:01	6.00				
VP2	330	343	14	KAKGTRASAKTTNK	HLA-A*30:01	5.00				
VP2	333	343	11	GTRASAKTTNK	HLA-A*30:01	6.00				
VP2	335	345	11	RASAKTTNKRR	HLA-A*31:01	44.00				

VP2	335	347	13	RASAKTTNKRRSR	HLA-A*31:01	25.00						
VP2	336	343	8	ASAKTTNK	HLA-A*11:01	30.00						
VP2	337	350	14	SAKTTNKRRSRSSR	HLA-A*31:01	42.00						
VP2	339	347	9	KTTNKRRSR	HLA-A*31:01	17.00						
VP2	339	350	12	KTTNKRRSRSSR	HLA-A*31:01	14.00						
VP2	340	347	8	TTNKRRSR	HLA-A*31:01	23.00	HLA-A*33:01	25.00	HLA-A*68:01	35.00		
VP2	340	350	11	TTNKRRSRSSR	HLA-A*31:01	15.00	HLA-A*33:01	18.00	HLA-A*68:01	14.00		
VP3	1	11	11	MALELFPNDEY	HLA-B*35:01	2.00	HLA-C*12:03	16.00				
VP3	1	12	12	MALELFPNDEYY	HLA-A*29:02	28.00	HLA-B*35:01	5.00	HLA-B*53:01	27.00	HLA-C*12:03	12.00
VP3	1	14	14	MALELFPNDEYYDI	HLA-C*03:03	29.00	HLA-C*12:03	31.00				
VP3	3	14	12	LELFPNDEYYDI	HLA-B*40:02	48.00						
VP3	3	15	13	LELFPNDEYYDIL	HLA-B*40:01	22.00	HLA-B*40:02	24.00				
VP3	5	12	8	LFNPDEYY	HLA-A*29:02	25.00						
VP3	9	22	14	DEYYDILFPGVNTF	HLA-B*18:01	3.00						
VP3	10	19	10	EYYDILFPGV	HLA-C*14:02	16.00						
VP3	10	22	13	EYYDILFPGVNTF	HLA-A*23:01	20.00	HLA-C*14:02	6.00				
VP3	10	23	14	EYYDILFPGVNTFV	HLA-A*68:02	6.00	HLA-C*14:02	9.00				
VP3	11	19	9	YYDILFPGV	HLA-A*02:06	22.00	HLA-C*14:02	30.00				
VP3	11	22	12	YYDILFPGVNTF	HLA-A*24:02	33.00	HLA-C*14:02	7.00				
VP3	11	23	13	YYDILFPGVNTFV	HLA-A*02:06	38.00	HLA-C*14:02	14.00				
VP3	13	23	11	DILFPGVNTFV	HLA-A*68:02	40.00						
VP3	14	22	9	ILFPGVNTF	HLA-A*32:01	21.00	HLA-B*15:01	28.00	HLA-C*12:03	15.00		
VP3	14	23	10	ILFPGVNTFV	HLA-A*02:01	5.00	HLA-A*02:06	26.00	HLA-C*12:03	31.00		
VP3	14	26	13	ILFPGVNTFVNNI	HLA-A*02:01	12.00	HLA-C*12:03	14.00				
VP3	15	22	8	LFPGVNTF	HLA-C*14:02	31.00						
VP3	15	26	12	LFPGVNTFVNNI	HLA-C*14:02	40.00						
VP3	16	26	11	FPGVNTFVNNI	HLA-B*53:01	19.00						
VP3	16	28	13	FPGVNTFVNNIQY	HLA-B*35:01	4.00	HLA-B*53:01	15.00				
VP3	16	29	14	FPGVNTFVNNIQYL	HLA-B*53:01	41.00						
VP3	20	28	9	NTFVNNIQY	HLA-A*68:01	44.00						
VP3	20	29	10	NTFVNNIQYL	HLA-A*68:02	26.00						

VP3	20	32	13	NTFVNNIQYLDPR	HLA-A*33:01	34.00	HLA-A*68:01	6.00				
VP3	21	28	8	TFVNNIQY	HLA-A*29:02	35.00						
VP3	21	29	9	TFVNNIQYL	HLA-C*14:02	8.00						
VP3	22	29	8	FVNNIQYL	HLA-A*02:06	29.00	HLA-A*68:02	24.00	HLA-C*03:03	39.00	HLA-C*12:03	44.00
VP3	22	32	11	FVNNIQYLDPR	HLA-A*31:01	33.00	HLA-A*68:01	12.00				
VP3	26	38	13	IQYLDPRHWGPSL	HLA-C*03:03	28.00						
VP3	27	38	12	QYLDPRHWGPSL	HLA-C*14:02	11.00						
VP3	27	39	13	QYLDPRHWGPSLF	HLA-A*23:01	30.00	HLA-C*14:02	35.00				
VP3	28	38	11	YLDPRHWGPSL	HLA-C*05:01	14.00						
VP3	28	39	12	YLDPRHWGPSLF	HLA-C*05:01	2.00						
VP3	28	40	13	YLDPRHWGPSLFA	HLA-A*02:01	14.00	HLA-A*02:06	13.00	HLA-C*05:01	31.00		
VP3	28	41	14	YLDPRHWGPSLFAT	HLA-A*02:01	25.00	HLA-A*02:06	13.00				
VP3	30	38	9	DPRHWGPSL	HLA-B*07:02	28.00						
VP3	35	46	12	GPSLFATISQAL	HLA-B*07:02	34.00						
VP3	36	47	12	PSLFATISQALW	HLA-B*58:01	46.00						
VP3	37	46	10	SLFATISQAL	HLA-A*02:01	35.00	HLA-C*14:02	22.00				
VP3	37	47	11	SLFATISQALW	HLA-B*58:01	41.00						
VP3	37	49	13	SLFATISQALWHV	HLA-A*02:01	5.00	HLA-A*02:06	5.00				
VP3	37	50	14	SLFATISQALWHVI	HLA-A*02:01	35.00						
VP3	38	46	9	LFATISQAL	HLA-C*03:03	44.00	HLA-C*14:02	30.00				
VP3	39	46	8	FATISQAL	HLA-C*03:03	2.00						
VP3	39	47	9	FATISQALW	HLA-B*53:01	10.00	HLA-B*58:01	7.00				
VP3	39	49	11	FATISQALWHV	HLA-A*68:02	39.00	HLA-C*03:03	31.00	HLA-C*12:03	40.00		
VP3	39	50	12	FATISQALWHVI	HLA-C*03:03	7.00	HLA-C*12:03	17.00				
VP3	39	51	13	FATISQALWHVIR	HLA-A*68:01	16.00						
VP3	40	47	8	ATISQALW	HLA-B*58:01	7.00						
VP3	40	49	10	ATISQALWHV	HLA-A*02:06	13.00						
VP3	40	51	12	ATISQALWHVIR	HLA-A*31:01	47.00						
VP3	41	49	9	TISQALWHV	HLA-A*02:01	40.00	HLA-A*02:06	7.00	HLA-A*68:02	23.00		
VP3	41	51	11	TISQALWHVIR	HLA-A*68:01	35.00						
VP3	42	51	10	ISQALWHVIR	HLA-A*31:01	22.00						



VP3	43	50	8	SQALWHVI	HLA-A*02:06	37.00	HLA-B*39:01	33.00		
VP3	43	51	9	SQALWHVIR	HLA-A*31:01	23.00				
VP3	44	57	14	QALWHVIRDDIPSI	HLA-C*12:03	28.00				
VP3	45	57	13	ALWHVIRDDIPSI	HLA-A*02:01	17.00				
VP3	46	57	12	LWHVIRDDIPSI	HLA-C*14:02	48.00				
VP3	47	57	11	WHVIRDDIPSI	HLA-B*38:01	48.00				
VP3	50	62	13	IRDDIPSITSQEL	HLA-C*06:02	45.00	HLA-C*07:01	24.00		
VP3	54	62	9	IPSITSQEL	HLA-B*07:02	33.00				
VP3	58	71	14	TSQELQRRTERFFR	HLA-A*31:01	32.00	HLA-A*33:01	49.00	HLA-A*68:01	25.00
VP3	59	71	13	SQELQRRTERFFR	HLA-A*31:01	50.00				
VP3	61	68	8	ELQRRTER	HLA-A*33:01	39.00				
VP3	61	71	11	ELQRRTERFFR	HLA-A*33:01	9.00	HLA-A*68:01	43.00		
VP3	62	69	8	LQRRTERF	HLA-B*15:01	28.00				
VP3	62	70	9	LQRRTERFF	HLA-B*15:01	32.00				
VP3	62	71	10	LQRRTERFFR	HLA-A*31:01	19.00				
VP3	64	71	8	RRTERFFR	HLA-B*27:05	47.00				
VP3	65	76	12	RTERFFRDSLAR	HLA-A*31:01	33.00				
VP3	66	74	9	TERFFRDSL	HLA-B*40:02	34.00				
VP3	68	76	9	RFFRDSLAR	HLA-A*31:01	19.00				
VP3	68	77	10	RFFRDSLARF	HLA-A*23:01	32.00				
VP3	68	78	11	RFFRDSLARFL	HLA-C*14:02	44.00				
VP3	69	76	8	FFRDSLAR	HLA-A*33:01	24.00				
VP3	69	77	9	FFRDSLARF	HLA-C*14:02	35.00				
VP3	69	78	10	FFRDSLARFL	HLA-C*14:02	14.00				
VP3	70	78	9	FRDSLARFL	HLA-B*39:01	26.00	HLA-C*06:02	16.00	HLA-C*07:01	29.00
VP3	72	83	12	DSLARFLEETTW	HLA-B*58:01	38.00				
VP3	73	85	13	SLARFLEETTWI	HLA-A*02:01	23.00	HLA-A*02:06	46.00	HLA-A*32:01	32.00
VP3	73	86	14	SLARFLEETWTIV	HLA-A*02:01	30.00	HLA-A*02:06	33.00		
VP3	77	85	9	FLEETTWI	HLA-A*02:01	8.00	HLA-A*02:06	6.00		
VP3	77	86	10	FLEETWTIV	HLA-A*02:01	21.00	HLA-A*02:06	25.00		
VP3	77	88	12	FLEETWTIVNA	HLA-A*02:01	20.00	HLA-A*02:06	32.00		

VP3	77	90	14	FLEETTWIVNAPI	HLA-A*02:01	13.00	HLA-A*02:06	14.00		
VP3	78	85	8	LEETTWI	HLA-B*40:01	42.00				
VP3	78	90	13	LEETTWIVNAPI	HLA-B*40:01	20.00				
VP3	80	88	9	ETTWIVNA	HLA-A*68:02	15.00				
VP3	80	90	11	ETTWIVNAPI	HLA-A*68:02	4.00				
VP3	80	93	14	ETTWIVNAPINFY	HLA-A*26:01	18.00	HLA-A*68:01	19.00		
VP3	81	88	8	TTWTIVNA	HLA-A*68:02	21.00				
VP3	81	90	10	TTWTIVNAPI	HLA-A*68:02	4.00	HLA-C*14:02	30.00		
VP3	81	92	12	TTWTIVNAPINF	HLA-A*32:01	47.00				
VP3	81	93	13	TTWTIVNAPINFY	HLA-A*11:01	48.00	HLA-A*29:02	12.00	HLA-A*30:02	36.00
VP3	82	90	9	TWTIVNAPI	HLA-C*14:02	37.00				
VP3	82	95	14	TWTIVNAPINFYNY	HLA-A*29:02	41.00				
VP3	83	90	8	WTIVNAPI	HLA-A*68:02	16.00				
VP3	83	95	13	WTIVNAPINFYNY	HLA-A*29:02	7.00	HLA-A*30:02	47.00		
VP3	83	96	14	WTIVNAPINFYNYI	HLA-A*68:02	28.00				
VP3	84	95	12	TIVNAPINFYNY	HLA-A*29:02	27.00				
VP3	84	96	13	TIVNAPINFYNYI	HLA-A*68:02	38.00				
VP3	85	93	9	IVNAPINFY	HLA-A*30:02	25.00				
VP3	85	96	12	IVNAPINFYNYI	HLA-A*68:02	29.00	HLA-C*12:03	30.00		
VP3	88	95	8	APINFYNY	HLA-B*35:01	36.00				
VP3	91	99	9	NFYNYIQQY	HLA-A*29:02	28.00	HLA-C*14:02	36.00		
VP3	91	100	10	NFYNYIQQYY	HLA-A*29:02	12.00	HLA-C*14:02	24.00		
VP3	91	103	13	NFYNYIQQYYSDL	HLA-C*14:02	11.00				
VP3	92	99	8	FYNYIQQY	HLA-A*29:02	30.00	HLA-C*14:02	33.00		
VP3	92	100	9	FYNYIQQYY	HLA-A*29:02	14.00	HLA-C*14:02	27.00		
VP3	92	103	12	FYNYIQQYYSDL	HLA-C*14:02	6.00				
VP3	93	100	8	YNYIQQYY	HLA-A*29:02	12.00				
VP3	93	103	11	YNYIQQYYSDL	HLA-C*03:03	17.00				
VP3	94	103	10	NYIQQYYSDL	HLA-C*14:02	16.00				
VP3	94	106	13	NYIQQYYSDLSPI	HLA-C*14:02	8.00				
VP3	97	106	10	QQYYSDLSPI	HLA-A*02:06	30.00				

VP3	97	110	14	QYYSDLSPIRPSM	HLA-B*15:01	41.00	HLA-C*14:02	20.00											
VP3	98	106	9	QYYSDLSPI	HLA-A*23:01	38.00	HLA-C*14:02	3.00											
VP3	98	110	13	QYYSDLSPIRPSM	HLA-C*14:02	3.00													
VP3	98	111	14	QYYSDLSPIRPSMV	HLA-C*14:02	4.00													
VP3	99	106	8	YYSDLSPI	HLA-C*12:03	33.00	HLA-C*14:02	3.00											
VP3	99	110	12	YYSDLSPIRPSM	HLA-C*07:02	48.00	HLA-C*14:02	4.00											
VP3	99	111	13	YYSDLSPIRPSMV	HLA-C*12:03	32.00	HLA-C*14:02	7.00											
VP3	100	110	11	YSDLSPIRPSM	HLA-C*05:01	16.00													
VP3	100	111	12	YSDLSPIRPSMV	HLA-A*01:01	30.00	HLA-C*05:01	2.00		HLA-C*12:03	27.00								
VP3	104	114	11	SPIRPSMVRQV	HLA-B*07:02	33.00													
VP3	104	115	12	SPIRPSMVRQVA	HLA-B*07:02	28.00													
VP3	106	114	9	IRPSMVRQV	HLA-C*06:02	29.00	HLA-C*07:01	26.00											
VP3	107	115	9	RPSMVRQVA	HLA-B*07:02	15.00													
VP3	109	117	9	SMVRQVAER	HLA-A*31:01	35.00													
VP3	110	117	8	MVRQVAER	HLA-A*31:01	31.00	HLA-A*33:01	31.00		HLA-A*68:01	20.00								
VP3	110	121	12	MVRQVAEREGTR	HLA-A*33:01	39.00	HLA-A*68:01	45.00											
VP3	112	124	13	RQVAEREGTRVHF	HLA-B*15:01	18.00													
VP3	114	124	11	VAEREGTRVHF	HLA-C*05:01	37.00													
VP3	115	128	14	AEREGTRVHFGHTY	HLA-B*18:01	18.00	HLA-B*44:03	42.00		HLA-B*44:03	42.00								
VP3	117	130	14	REGTRVHFGHTYSI	HLA-B*40:02	38.00													
VP3	119	129	11	GTRVHFGHTYS	HLA-A*30:01	28.00													
VP3	119	130	12	GTRVHFGHTYSI	HLA-A*30:01	10.00													
VP3	120	130	11	TRVHFGHTYSI	HLA-B*39:01	28.00													
VP3	121	128	8	RVHFGHTY	HLA-A*29:02	33.00	HLA-A*30:01	20.00		HLA-A*30:02	38.00		HLA-A*80:01	28.00					
VP3	121	129	9	RVHFGHTYS	HLA-A*30:01	24.00													
VP3	122	130	9	VHFGHTYSI	HLA-B*39:01	15.00	HLA-C*06:02	14.00		HLA-C*07:01	8.00		HLA-C*14:02	42.00					
VP3	126	136	11	HTYSIDDADSI	HLA-A*68:02	12.00	HLA-C*14:02	22.00		HLA-C*15:02	42.00								
VP3	126	139	14	HTYSIDDADSIEEV	HLA-A*68:02	3.00	HLA-C*12:03	45.00		HLA-C*15:02	28.00								
VP3	127	136	10	TYSIDDADSI	HLA-C*14:02	18.00													
VP3	127	139	13	TYSIDDADSIEEV	HLA-C*14:02	34.00													
VP3	128	136	9	YSIDDADSI	HLA-C*03:03	7.00	HLA-C*12:03	7.00		HLA-C*15:02	32.00								

VP3	128	139	12	YSIDDADSIEEV	HLA-A*02:06	13.00	HLA-A*68:02	20.00	HLA-C*03:03	17.00	HLA-C*12:03	6.00	HLA-C*15:02	22.00
VP3	129	139	11	SIDDADSIEEV	HLA-C*05:01	33.00								
VP3	132	142	11	DADSIEEVTQR	HLA-A*68:01	50.00								
VP3	134	142	9	DSIEEVTQR	HLA-A*68:01	17.00								
VP3	134	146	13	DSIEEVTQRMDLR	HLA-A*68:01	19.00								
VP3	138	146	9	EVTQRMDLR	HLA-A*33:01	37.00	HLA-A*68:01	12.00						
VP3	138	151	14	EVTQRMDLRNQGSV	HLA-A*68:02	33.00								
VP3	141	151	11	QRMDLRNQGSV	HLA-C*06:02	23.00	HLA-C*07:01	17.00						
VP3	147	156	10	NQGSVHSGEF	HLA-B*15:01	21.00								
VP3	148	156	9	QGSVHSGEF	HLA-B*15:01	24.00								
VP3	150	159	10	SVHSGEFIEK	HLA-A*11:01	22.00								
VP3	159	169	11	KTIAPGGANQR	HLA-A*31:01	37.00								
VP3	160	169	10	TIAPGGANQR	HLA-A*68:01	31.00								
VP3	161	174	14	IAPGGANQRTAPQW	HLA-B*58:01	48.00								
VP3	168	178	11	QRTAPQWMLPL	HLA-B*39:01	34.00								
VP3	169	178	10	RTAPQWMLPL	HLA-C*15:02	41.00								
VP3	169	179	11	RTAPQWMLPLL	HLA-A*30:01	44.00	HLA-B*58:01	44.00						
VP3	169	180	12	RTAPQWMLPLLL	HLA-B*58:01	30.00								
VP3	169	182	14	RTAPQWMLPLLLGL	HLA-A*02:06	40.00								
VP3	171	179	9	APQWMLPLL	HLA-B*07:02	29.00								
VP3	171	182	12	APQWMLPLLLGL	HLA-B*07:02	21.00								
VP3	174	182	9	WMLPLLLGL	HLA-A*02:01	9.00	HLA-A*02:06	6.00						
VP3	174	183	10	WMLPLLLGLY	HLA-A*29:02	37.00	HLA-A*80:01	45.00	HLA-B*15:01	28.00				
VP3	174	185	12	WMLPLLLGLYGT	HLA-A*02:01	29.00	HLA-A*02:06	19.00						
VP3	174	186	13	WMLPLLLGLYGTV	HLA-A*02:01	14.00	HLA-A*02:06	5.00						
VP3	175	183	9	MLPLLLGLY	HLA-A*29:02	20.00								
VP3	176	183	8	LPLLLGLY	HLA-B*35:01	14.00								
VP3	178	186	9	LLGLYGTV	HLA-A*02:01	46.00	HLA-A*02:06	27.00						
VP3	178	189	12	LLGLYGTVTPA	HLA-A*02:01	37.00	HLA-A*02:06	50.00						
VP3	178	190	13	LLGLYGTVTPAL	HLA-A*02:01	19.00	HLA-A*02:06	34.00	HLA-C*03:03	24.00				
VP3	181	189	9	GLYGTVTPA	HLA-A*02:01	24.00								

VP3	181	190	10	GLYGTVTPAL	HLA-A*02:01	20.00	HLA-C*03:03	24.00	HLA-C*14:02	24.00
VP3	181	193	13	GLYGTVTPALEAY	HLA-A*29:02	24.00	HLA-B*15:01	41.00		
VP3	182	190	9	LYGTVTPAL	HLA-C*14:02	8.00				
VP3	185	193	9	TVTPALEAY	HLA-B*35:01	17.00				
VP3	191	202	12	EAYEDGPNQKKR	HLA-A*68:01	28.00				
VP3	191	203	13	EAYEDGPNQKKRR	HLA-A*68:01	40.00				
VP3	191	204	14	EAYEDGPNQKKRRV	HLA-C*12:03	11.00				
VP3	198	206	9	NQKKRRVSR	HLA-A*31:01	17.00				
VP3	200	211	12	KKRRVSRGSSQK	HLA-A*30:01	12.00				
VP3	200	213	14	KKRRVSRGSSQKAK	HLA-A*30:01	19.00				
VP3	201	211	11	KRRVSRGSSQK	HLA-A*30:01	18.00				
VP3	201	213	13	KRRVSRGSSQKAK	HLA-A*30:01	27.00				
VP3	202	211	10	RRVSRGSSQK	HLA-B*27:05	36.00				
VP3	202	213	12	RRVSRGSSQKAK	HLA-B*27:05	42.00				
VP3	203	211	9	RVSRGSSQK	HLA-A*03:01	47.00	HLA-A*11:01	23.00	HLA-A*30:01	25.00
VP3	203	213	11	RVSRGSSQKAK	HLA-A*30:01	36.00				
VP3	203	216	14	RVSRGSSQKAKGTR	HLA-A*31:01	42.00				
VP3	204	211	8	VSRGSSQK	HLA-A*30:01	14.00				
VP3	209	216	8	SQKAKGTR	HLA-A*31:01	36.00				
VP3	211	219	9	KAKGTRASA	HLA-A*30:01	6.00				
VP3	211	224	14	KAKGTRASAKTTNK	HLA-A*30:01	5.00				
VP3	214	224	11	GTRASAKTTNK	HLA-A*30:01	6.00				
VP3	216	226	11	RASAKTTNKRR	HLA-A*31:01	44.00				
VP3	216	228	13	RASAKTTNKRRSR	HLA-A*31:01	25.00				
VP3	217	224	8	ASAKTTNK	HLA-A*11:01	30.00				
VP3	218	231	14	SAKTTNKRRSRSSR	HLA-A*31:01	42.00				
VP3	220	228	9	KTTNKRRSR	HLA-A*31:01	17.00				
VP3	220	231	12	KTTNKRRSRSSR	HLA-A*31:01	14.00				
VP3	221	228	8	TTNKRRSR	HLA-A*31:01	23.00	HLA-A*33:01	25.00	HLA-A*68:01	35.00
VP3	221	231	11	TTNKRRSRSSR	HLA-A*31:01	15.00	HLA-A*33:01	18.00	HLA-A*68:01	14.00
LTA	6	13	8	NREESMEL	HLA-C*07:01	33.00				

LTA	6	14	9	NREESMELM	HLA-C*07:01	30.00							
LTA	6	17	12	NREESMELMDLL	HLA-C*07:01	49.00							
LTA	7	14	8	REESMELM	HLA-B*40:01	28.00							
LTA	7	17	11	REESMELMDLL	HLA-B*40:01	7.00							
LTA	7	19	13	REESMELMDLLGL	HLA-B*40:01	7.00							
LTA	9	17	9	ESMELMDLL	HLA-A*68:02	7.00							
LTA	9	19	11	ESMELMDLLGL	HLA-A*68:02	23.00							
LTA	9	21	13	ESMELMDLLGLER	HLA-A*33:01	35.00	HLA-A*68:01	18.00					
LTA	9	22	14	ESMELMDLLGLERA	HLA-A*68:02	26.00							
LTA	11	19	9	MELMDLLGL	HLA-B*40:01	20.00	HLA-B*40:02	28.00					
LTA	11	24	14	MELMDLLGLERAAW	HLA-B*18:01	24.00	HLA-B*44:02	18.00	HLA-B*44:03	22.00	HLA-B*44:03	22.00	
LTA	12	21	10	ELMDLLGLER	HLA-A*33:01	48.00	HLA-A*68:01	34.00					
LTA	19	29	11	LERAAWGNLPL	HLA-B*40:01	28.00	HLA-B*40:02	40.00					
LTA	20	29	10	ERAAWGNLPL	HLA-B*39:01	7.00							
LTA	21	29	9	RAAWGNLPL	HLA-B*07:02	10.00	HLA-C*03:03	6.00					
LTA	21	30	10	RAAWGNLPLM	HLA-C*03:03	38.00							
LTA	21	31	11	RAAWGNLPLMR	HLA-A*31:01	37.00							
LTA	21	32	12	RAAWGNLPLMRK	HLA-A*03:01	43.00	HLA-A*11:01	25.00					
LTA	21	34	14	RAAWGNLPLMRKAY	HLA-B*35:01	26.00							
LTA	22	29	8	AAWGNLPL	HLA-C*03:03	7.00							
LTA	22	30	9	AAWGNLPLM	HLA-C*03:03	41.00							
LTA	22	34	13	AAWGNLPLMRKAY	HLA-B*35:01	44.00							
LTA	22	35	14	AAWGNLPLMRKAYL	HLA-C*03:03	10.00							
LTA	27	34	8	LPLMRKAY	HLA-B*35:01	8.00							
LTA	27	35	9	LPLMRKAYL	HLA-B*07:02	35.00	HLA-B*08:01	13.00					
LTA	29	36	8	LMRKAYLR	HLA-A*31:01	13.00							
LTA	29	37	9	LMRKAYLRK	HLA-A*03:01	27.00	HLA-A*30:01	7.00					
LTA	29	39	11	LMRKAYLRKCK	HLA-A*30:01	19.00							
LTA	29	41	13	LMRKAYLRKCKEF	HLA-B*15:01	30.00							
LTA	32	39	8	KAYLRKCK	HLA-A*30:01	50.00							
LTA	32	45	14	KAYLRKCKEFHPDK	HLA-A*03:01	45.00	HLA-A*30:01	25.00					

LTA	33	41	9	AYLRKCKEF	HLA-C*14:02	13.00				
LTA	37	45	9	KCKEFHPDK	HLA-A*30:01	6.00				
LTA	41	52	12	FHPDKGGDEDKM	HLA-C*07:01	31.00	HLA-C*14:02	45.00		
LTA	48	59	12	DEDKMKRMNTLY	HLA-B*18:01	14.00				
LTA	51	58	8	KMKRMNTL	HLA-A*30:01	26.00				
LTA	51	59	9	KMKRMNTLY	HLA-A*30:01	33.00	HLA-A*30:02	33.00	HLA-A*80:01	46.00
LTA	51	60	10	KMKRMNTLYK	HLA-A*03:01	14.00	HLA-A*11:01	28.00	HLA-A*31:01	16.00
LTA	51	61	11	KMKRMNTLYKK	HLA-A*30:01	5.00	HLA-A*31:01	8.00		
LTA	52	60	9	MKRMNTLYK	HLA-A*30:01	7.00				
LTA	53	61	9	KRMNTLYKK	HLA-B*27:05	17.00				
LTA	53	62	10	KRMNTLYKKM	HLA-B*27:05	28.00				
LTA	54	61	8	RMNTLYKK	HLA-A*03:01	40.00	HLA-A*11:01	26.00	HLA-A*31:01	10.00
LTA	62	70	9	MEQDVKVAH	HLA-B*18:01	41.00				
LTA	62	74	13	MEQDVKVAHQPDF	HLA-B*18:01	19.00	HLA-B*44:02	40.00		
LTA	67	77	11	KVAHQPDFGTW	HLA-B*58:01	12.00				
LTA	70	82	13	HQPDFGTWSSSEV	HLA-A*02:06	23.00				
LTA	74	85	12	FGTWSSSEVPTY	HLA-B*35:01	9.00				
LTA	77	85	9	WSSSEVPTY	HLA-B*35:01	13.00				
LTA	77	90	14	WSSSEVPTYGTEEW	HLA-B*58:01	8.00				
LTA	78	90	13	SSSEVPTYGTEEW	HLA-B*58:01	8.00				
LTA	80	90	11	SEVPTYGTEEW	HLA-B*44:02	28.00	HLA-B*44:03	24.00	HLA-B*44:03	24.00
LTA	80	93	14	SEVPTYGTEEWESW	HLA-B*44:02	32.00	HLA-B*44:03	26.00	HLA-B*44:03	26.00
LTA	82	90	9	VPTYGTEEW	HLA-B*53:01	15.00				
LTA	82	93	12	VPTYGTEEWESW	HLA-B*53:01	20.00				
LTA	82	94	13	VPTYGTEEWESWW	HLA-B*53:01	22.00				
LTA	84	97	14	TYGTEEWESWWSSF	HLA-A*23:01	38.00	HLA-A*24:02	39.00	HLA-C*14:02	50.00
LTA	87	94	8	TEEWESWW	HLA-B*44:02	38.00				
LTA	88	96	9	EEWESWWSS	HLA-B*40:02	50.00				
LTA	88	97	10	EEWESWWSSF	HLA-B*44:03	43.00	HLA-B*44:03	43.00		
LTA	88	101	14	EEWESWWSSFNEKW	HLA-B*44:03	15.00	HLA-B*44:03	15.00		
LTA	90	97	8	WESWWSSF	HLA-B*18:01	45.00	HLA-B*40:01	30.00		

LTA	90	101	12	WESWWSSFNEKW	HLA-B*44:02	47.00	HLA-B*44:03	26.00	HLA-B*44:03	26.00
LTA	91	100	10	ESWWSSFNEK	HLA-A*68:01	33.00				
LTA	91	101	11	ESWWSSFNEKW	HLA-B*58:01	13.00				
LTA	94	101	8	WSSFNEKW	HLA-B*58:01	14.00				
LTA	112	120	9	FASDEEATA	HLA-C*12:03	28.00				
LTA	118	129	12	ATADSQHSTPPK	HLA-A*11:01	14.00	HLA-A*30:01	21.00		
LTA	118	130	13	ATADSQHSTPPKK	HLA-A*11:01	20.00				
LTA	118	131	14	ATADSQHSTPPKKK	HLA-A*11:01	36.00				
LTA	122	129	8	SQHSTPPK	HLA-A*11:01	34.00	HLA-A*30:01	10.00		
LTA	122	130	9	SQHSTPPKK	HLA-A*30:01	33.00				
LTA	140	147	8	FPSDLHQF	HLA-B*35:01	5.00	HLA-B*53:01	8.00		
LTA	140	148	9	FPSDLHQFL	HLA-B*35:01	18.00	HLA-B*53:01	42.00	HLA-C*03:03	34.00
LTA	140	152	13	FPSDLHQFLSQAV	HLA-B*35:01	15.00	HLA-C*12:03	28.00		
LTA	140	153	14	FPSDLHQFLSQAVF	HLA-B*35:01	4.00	HLA-B*35:03	50.00	HLA-B*53:01	10.00
LTA	141	153	13	PSDLHQFLSQAVF	HLA-C*05:01	17.00				
LTA	143	156	14	DLHQFLSQAVFSNR	HLA-A*33:01	17.00	HLA-A*68:01	47.00		
LTA	145	152	8	HQFLSQAV	HLA-A*02:06	41.00	HLA-B*39:01	31.00		
LTA	145	153	9	HQFLSQAVF	HLA-B*15:01	24.00				
LTA	145	156	12	HQFLSQAVFSNR	HLA-A*31:01	16.00				
LTA	145	158	14	HQFLSQAVFSNRTL	HLA-B*39:01	21.00				
LTA	146	156	11	QFLSQAVFSNR	HLA-A*33:01	33.00				
LTA	146	158	13	QFLSQAVFSNRTL	HLA-C*14:02	28.00				
LTA	147	156	10	FLSQAVFSNR	HLA-A*68:01	31.00				
LTA	147	158	12	FLSQAVFSNRTL	HLA-A*02:01	37.00	HLA-C*03:03	11.00		
LTA	148	156	9	LSQAVFSNR	HLA-A*31:01	15.00				
LTA	148	161	14	LSQAVFSNRTLACF	HLA-B*15:01	38.00				
LTA	149	156	8	SQAVFSNR	HLA-A*31:01	33.00				
LTA	149	161	13	SQAVFSNRTLACF	HLA-B*15:01	24.00				
LTA	149	162	14	SQAVFSNRTLACFA	HLA-A*02:06	31.00				
LTA	150	158	9	QAVFSNRTL	HLA-C*03:03	4.00				
LTA	151	163	13	AVFSNRTLACFAV	HLA-A*02:06	19.00	HLA-A*68:02	28.00		



LTA	151	164	14	AVFSNRTLACFAVY	HLA-A*29:02	16.00	HLA-A*30:02	12.00	HLA-B*15:01	47.00				
LTA	152	164	13	VFSNRTLACFAVY	HLA-A*29:02	32.00								
LTA	153	164	12	FSNRTLACFAVY	HLA-A*01:01	25.00	HLA-A*30:02	39.00	HLA-B*15:01	26.00	HLA-B*35:01	30.00	HLA-C*12:03	31.00
LTA	156	163	8	RTLACFAV	HLA-A*02:06	4.00								
LTA	156	164	9	RTLACFAVY	HLA-A*30:02	8.00	HLA-A*80:01	23.00	HLA-B*15:01	38.00	HLA-B*58:01	32.00		
LTA	156	167	12	RTLACFAVYTTK	HLA-A*03:01	30.00	HLA-A*11:01	16.00	HLA-A*30:01	8.00	HLA-A*31:01	10.00		
LTA	156	169	14	RTLACFAVYTTKEK	HLA-A*11:01	27.00	HLA-A*30:01	13.00	HLA-A*31:01	50.00				
LTA	157	164	8	TLACFAVY	HLA-A*29:02	33.00								
LTA	157	167	11	TLACFAVYTTK	HLA-A*68:01	35.00								
LTA	160	173	14	CFAVYTTKEKAQIL	HLA-C*14:02	48.00								
LTA	161	169	9	FAVYTTKEK	HLA-A*68:01	39.00								
LTA	161	170	10	FAVYTTKEKA	HLA-C*03:03	41.00								
LTA	161	171	11	FAVYTTKEKAQ	HLA-C*03:03	36.00								
LTA	161	172	12	FAVYTTKEKAQI	HLA-C*03:03	3.00	HLA-C*12:03	19.00						
LTA	161	173	13	FAVYTTKEKAQIL	HLA-C*03:03	1.00	HLA-C*12:03	15.00						
LTA	161	174	14	FAVYTTKEKAQILY	HLA-A*29:02	33.00	HLA-B*35:01	4.00	HLA-C*03:03	9.00	HLA-C*12:03	45.00		
LTA	162	169	8	AVYTTKEK	HLA-A*11:01	33.00								
LTA	162	173	12	AVYTTKEKAQIL	HLA-C*03:03	21.00								
LTA	162	174	13	AVYTTKEKAQILY	HLA-A*29:02	28.00								
LTA	162	175	14	AVYTTKEKAQILYK	HLA-A*03:01	30.00	HLA-A*11:01	14.00	HLA-A*30:01	48.00				
LTA	163	172	10	VYTTKEKAQI	HLA-C*14:02	16.00								
LTA	163	173	11	VYTTKEKAQIL	HLA-C*14:02	7.00								
LTA	164	173	10	YTTKEKAQIL	HLA-C*03:03	19.00								
LTA	164	174	11	YTTKEKAQILY	HLA-A*01:01	48.00	HLA-A*80:01	29.00						
LTA	164	175	12	YTTKEKAQILYK	HLA-A*11:01	46.00	HLA-A*68:01	18.00						
LTA	164	176	13	YTTKEKAQILYKK	HLA-A*68:01	18.00								
LTA	164	177	14	YTTKEKAQILYKKL	HLA-C*03:03	23.00								
LTA	165	175	11	TTKEKAQILYK	HLA-A*30:01	10.00								
LTA	167	175	9	KEKAQILYK	HLA-A*30:01	29.00								
LTA	170	183	14	AQILYKKLMEKYSV	HLA-A*02:06	30.00								
LTA	172	180	9	ILYKKLMEK	HLA-A*03:01	12.00	HLA-A*11:01	33.00						

LTA	172	183	12	ILYKKLMEKYSV	HLA-A*02:01	10.00	HLA-A*02:06	35.00		
LTA	172	185	14	ILYKKLMEKYSVTF	HLA-A*32:01	18.00	HLA-B*15:01	43.00		
LTA	173	185	13	LYKKLMEKYSVTF	HLA-A*23:01	46.00	HLA-A*24:02	40.00	HLA-C*14:02	29.00
LTA	173	186	14	LYKKLMEKYSVTFI	HLA-C*14:02	15.00				
LTA	176	183	8	KLMEKYSV	HLA-A*02:06	4.00				
LTA	176	185	10	KLMEKYSVTF	HLA-B*15:01	38.00				
LTA	176	186	11	KLMEKYSVTFI	HLA-A*02:01	23.00	HLA-A*32:01	29.00		
LTA	176	188	13	KLMEKYSVTFISR	HLA-A*31:01	9.00				
LTA	177	185	9	LMEKYSVTF	HLA-B*15:01	47.00				
LTA	179	188	10	EKYSVTFISR	HLA-A*33:01	50.00				
LTA	180	188	9	KYSVTFISR	HLA-A*31:01	9.00				
LTA	180	192	13	KYSVTFISRHMCA	HLA-A*30:01	49.00				
LTA	181	188	8	YSVTFISR	HLA-A*68:01	10.00				
LTA	181	190	10	YSVTFISRHM	HLA-C*03:03	9.00	HLA-C*12:03	29.00		
LTA	184	197	14	TFISRHMCAGHNII	HLA-C*14:02	40.00				
LTA	185	196	12	FISRHMCAGHNI	HLA-A*02:06	34.00	HLA-C*12:03	39.00		
LTA	185	197	13	FISRHMCAGHNII	HLA-C*12:03	19.00				
LTA	188	197	10	RHMCAGHNII	HLA-B*39:01	34.00				
LTA	188	200	13	RHMCAGHNIIFFL	HLA-B*38:01	39.00	HLA-B*39:01	41.00		
LTA	189	199	11	HMCAGHNIIF	HLA-B*15:01	41.00				
LTA	190	198	9	MCAGHNIIF	HLA-B*35:01	50.00				
LTA	190	200	11	MCAGHNIIFFL	HLA-A*68:02	15.00				
LTA	194	204	11	HNIIFFLTPHR	HLA-A*68:01	40.00				
LTA	194	206	13	HNIIFFLTPHRHR	HLA-A*33:01	46.00				
LTA	195	204	10	NIIFFLTPHR	HLA-A*68:01	8.00				
LTA	195	206	12	NIIFFLTPHRHR	HLA-A*33:01	16.00	HLA-A*68:01	19.00		
LTA	195	207	13	NIIFFLTPHRHRV	HLA-A*68:02	9.00				
LTA	196	204	9	IIFFLTPHR	HLA-A*31:01	32.00	HLA-A*33:01	46.00	HLA-A*68:01	10.00
LTA	196	206	11	IIFFLTPHRHR	HLA-A*31:01	24.00	HLA-A*33:01	23.00	HLA-A*68:01	23.00
LTA	196	207	12	IIFFLTPHRHRV	HLA-A*02:01	45.00	HLA-A*68:02	39.00		
LTA	197	204	8	IFFLTPHR	HLA-A*31:01	21.00	HLA-A*33:01	14.00		

LTA	197	206	10	IFFLTPHRHR	HLA-A*31:01	27.00	HLA-A*33:01	29.00					
LTA	197	210	14	IFFLTPHRHRVSAI	HLA-C*14:02	24.00							
LTA	198	206	9	FFLTPHRHR	HLA-A*33:01	9.00							
LTA	198	210	13	FFLTPHRHRVSAI	HLA-C*14:02	13.00							
LTA	199	207	9	FLTPHRHRV	HLA-A*02:01	23.00	HLA-A*02:06	9.00	HLA-C*12:03	37.00			
LTA	199	210	12	FLTPHRHRVSAI	HLA-A*02:01	48.00	HLA-A*02:06	23.00	HLA-C*12:03	22.00	HLA-C*14:02	27.00	
LTA	201	209	9	TPHRHRVSA	HLA-B*07:02	21.00	HLA-B*08:01	19.00					
LTA	201	210	10	TPHRHRVSAI	HLA-B*07:02	25.00							
LTA	203	210	8	HRHRVSAI	HLA-B*39:01	17.00							
LTA	204	216	13	RHRVSAINNFCQK	HLA-A*30:01	14.00							
LTA	205	217	13	HRVSAINNFCQKL	HLA-B*39:01	49.00							
LTA	206	213	8	RVSAINNF	HLA-A*32:01	38.00							
LTA	206	216	11	RVSAINNFCQK	HLA-A*30:01	11.00	HLA-A*31:01	35.00					
LTA	207	220	14	VSAINNFCQKLCTF	HLA-B*58:01	29.00							
LTA	208	216	9	SAINNFCQK	HLA-A*11:01	19.00	HLA-A*68:01	22.00					
LTA	208	217	10	SAINNFCQKL	HLA-C*03:03	7.00							
LTA	208	220	13	SAINNFCQKLCTF	HLA-C*03:03	12.00							
LTA	209	216	8	AINNFCQK	HLA-A*11:01	17.00							
LTA	209	220	12	AINNFCQKLCTF	HLA-A*32:01	48.00							
LTA	209	222	14	AINNFCQKLCTFSF	HLA-A*32:01	22.00							
LTA	216	224	9	KLCTFSFLI	HLA-A*02:01	11.00	HLA-A*32:01	14.00					
LTA	216	226	11	KLCTFSFLICK	HLA-A*30:01	45.00							
LTA	218	226	9	CTFSFLICK	HLA-A*03:01	43.00	HLA-A*11:01	12.00	HLA-A*30:01	27.00	HLA-A*68:01	6.00	
LTA	218	228	11	CTFSFLICKGV	HLA-A*68:02	23.00							
LTA	218	230	13	CTFSFLICKGVNK	HLA-A*03:01	41.00	HLA-A*11:01	15.00	HLA-A*68:01	12.00			
LTA	220	228	9	FSFLICKGV	HLA-A*68:02	39.00							
LTA	220	230	11	FSFLICKGVNK	HLA-A*68:01	20.00							
LTA	220	233	14	FSFLICKGVNKEYL	HLA-A*68:02	43.00	HLA-C*03:03	17.00					
LTA	222	233	12	FLICKGVNKEYL	HLA-A*02:01	21.00	HLA-A*02:06	33.00	HLA-C*03:03	8.00			
LTA	222	234	13	FLICKGVNKEYLL	HLA-A*02:01	9.00	HLA-A*02:06	35.00	HLA-C*03:03	20.00			
LTA	222	235	14	FLICKGVNKEYLLY	HLA-A*29:02	5.00	HLA-A*80:01	31.00					

LTA	223	235	13	LICKGVNKEYLLY	HLA-A*29:02	25.00	HLA-A*80:01	26.00				
LTA	227	235	9	GVNKEYLLY	HLA-A*29:02	7.00	HLA-A*80:01	14.00				
LTA	229	238	10	NKEYLLYSAL	HLA-B*39:01	45.00						
LTA	230	237	8	KEYLLYSA	HLA-B*40:02	6.00						
LTA	230	238	9	KEYLLYSAL	HLA-B*40:01	6.00	HLA-B*40:02	4.00				
LTA	230	240	11	KEYLLYSALTR	HLA-B*40:02	43.00						
LTA	230	243	14	KEYLLYSALTRDPY	HLA-B*18:01	14.00	HLA-B*40:02	44.00				
LTA	231	238	8	EYLLYSAL	HLA-C*14:02	11.00						
LTA	231	240	10	EYLLYSALTR	HLA-A*33:01	10.00						
LTA	232	243	12	YLLYSALTRDPY	HLA-A*29:02	12.00	HLA-B*15:01	45.00	HLA-C*14:02	49.00		
LTA	232	245	14	YLLYSALTRDPYHT	HLA-A*02:01	31.00						
LTA	233	243	11	LLYSALTRDPY	HLA-B*15:01	27.00						
LTA	233	246	14	LLYSALTRDPYHTI	HLA-A*02:01	20.00	HLA-A*02:06	40.00	HLA-C*03:03	31.00	HLA-C*12:03	25.00
LTA	234	243	10	LYSALTRDPY	HLA-C*14:02	28.00						
LTA	234	246	13	LYSALTRDPYHTI	HLA-A*24:02	21.00	HLA-C*14:02	9.00				
LTA	235	243	9	YSALTRDPY	HLA-A*01:01	26.00	HLA-B*15:01	46.00	HLA-B*35:01	31.00		
LTA	235	246	12	YSALTRDPYHTI	HLA-A*68:02	50.00	HLA-C*03:03	40.00	HLA-C*12:03	18.00		
LTA	236	243	8	SALTRDPY	HLA-B*35:01	41.00						
LTA	236	246	11	SALTRDPYHTI	HLA-C*12:03	25.00						
LTA	238	246	9	LTRDPYHTI	HLA-A*30:01	32.00	HLA-C*12:03	12.00				
LTA	239	246	8	TRDPYHTI	HLA-B*39:01	37.00	HLA-C*07:01	48.00				
LTA	241	250	10	DPYHTIEESI	HLA-C*12:03	44.00						
LTA	242	250	9	PYHTIEESI	HLA-C*14:02	9.00						
LTA	242	254	13	PYHTIEESIQGGL	HLA-C*14:02	17.00						
LTA	244	254	11	HTIEESIQGGL	HLA-A*26:01	40.00	HLA-A*68:02	24.00				
LTA	244	255	12	HTIEESIQGGLK	HLA-A*11:01	40.00	HLA-A*68:01	21.00				
LTA	246	254	9	IEESIQGGL	HLA-B*40:01	39.00						
LTA	259	270	12	FSPEEPEETKQV	HLA-C*12:03	21.00						
LTA	265	272	8	EETKQVSW	HLA-B*44:02	25.00	HLA-B*44:03	49.00	HLA-B*44:03	49.00		
LTA	265	278	14	EETKQVSWKLITEY	HLA-B*44:03	27.00	HLA-B*44:03	27.00				
LTA	266	273	8	ETKQVSWK	HLA-A*68:01	15.00						

LTA	266	274	9	ETKQVSWKL	HLA-A*68:02	45.00				
LTA	266	278	13	ETKQVSWKLITEY	HLA-A*26:01	6.00				
LTA	266	279	14	ETKQVSWKLITEYA	HLA-A*68:02	15.00				
LTA	268	278	11	KQVSWKLITEY	HLA-B*15:01	39.00				
LTA	268	279	12	KQVSWKLITEYA	HLA-A*02:06	28.00				
LTA	268	280	13	KQVSWKLITEYAV	HLA-A*02:06	10.00				
LTA	273	280	8	KLITEYAV	HLA-A*02:06	10.00				
LTA	276	288	13	TEYAVETKCEDVF	HLA-B*18:01	26.00				
LTA	276	289	14	TEYAVETKCEDVFL	HLA-B*40:01	12.00				
LTA	278	287	10	YAVETKCEDV	HLA-C*03:03	8.00	HLA-C*12:03	18.00		
LTA	278	288	11	YAVETKCEDVF	HLA-B*35:01	5.00	HLA-C*03:03	4.00	HLA-C*12:03	14.00
LTA	278	289	12	YAVETKCEDVFL	HLA-A*02:06	39.00	HLA-C*03:03	2.00	HLA-C*12:03	12.00
LTA	278	290	13	YAVETKCEDVFLL	HLA-A*02:06	20.00	HLA-C*03:03	2.00	HLA-C*12:03	11.00
LTA	278	291	14	YAVETKCEDVFLLL	HLA-A*02:06	26.00	HLA-C*03:03	2.00	HLA-C*12:03	8.00
LTA	280	290	11	VETKCEDVFLL	HLA-B*40:01	32.00				
LTA	280	291	12	VETKCEDVFLLL	HLA-B*40:01	29.00				
LTA	281	289	9	ETKCEDVFL	HLA-A*68:02	40.00				
LTA	281	294	14	ETKCEDVFLLLGMY	HLA-A*26:01	12.00				
LTA	284	291	8	CEDVFLLL	HLA-B*40:01	28.00				
LTA	284	295	12	CEDVFLLLGMYL	HLA-B*40:01	21.00				
LTA	286	294	9	DVFLLLGMY	HLA-A*25:01	45.00	HLA-A*26:01	11.00		
LTA	286	299	14	DVFLLLGMYLEFQY	HLA-A*29:02	36.00				
LTA	287	294	8	VFLLLGMY	HLA-A*29:02	9.00				
LTA	287	295	9	VFLLLGMYL	HLA-C*14:02	47.00				
LTA	287	297	11	VFLLLGMYLEF	HLA-A*23:01	31.00				
LTA	287	299	13	VFLLLGMYLEFQY	HLA-A*29:02	5.00				
LTA	288	295	8	FLLLGMYL	HLA-A*02:06	13.00	HLA-C*03:03	14.00		
LTA	288	299	12	FLLLGMYLEFQY	HLA-A*29:02	3.00				
LTA	288	301	14	FLLLGMYLEFQYNV	HLA-A*02:01	3.00	HLA-A*02:06	5.00		
LTA	289	297	9	LLLGMYLEF	HLA-A*29:02	50.00				
LTA	289	299	11	LLLGMYLEFQY	HLA-A*29:02	33.00				

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LTA	329	338	10	FAESKNQKSI	HLA-C*03:03	17.00	HLA-C*12:03	8.00		
LTA	330	338	9	AESKNQKSI	HLA-B*44:02	37.00				
LTA	330	343	14	AESKNQKSICQQAV	HLA-B*40:02	41.00	HLA-B*44:02	44.00		
LTA	336	343	8	KSICQQAV	HLA-C*15:02	35.00				
LTA	336	346	11	KSICQQAVDTV	HLA-C*15:02	31.00				
LTA	336	347	12	KSICQQAVDTVL	HLA-B*58:01	28.00	HLA-C*15:02	42.00		
LTA	336	349	14	KSICQQAVDTVLAK	HLA-A*11:01	24.00	HLA-A*30:01	11.00		
LTA	337	349	13	SICQQAVDTVLAK	HLA-A*11:01	27.00				
LTA	337	350	14	SICQQAVDTVLAKK	HLA-A*11:01	37.00				
LTA	341	352	12	QAVDTVLAKKRV	HLA-C*12:03	37.00				
LTA	342	349	8	AVDTVLAK	HLA-A*11:01	23.00				
LTA	342	350	9	AVDTVLAKK	HLA-A*11:01	26.00				
LTA	344	351	8	DTVLAKKR	HLA-A*68:01	39.00				
LTA	347	355	9	LAKKRVDTL	HLA-B*08:01	24.00	HLA-C*03:03	21.00	HLA-C*12:03	15.00
LTA	347	357	11	LAKKRVDTLHM	HLA-C*12:03	28.00				
LTA	347	359	13	LAKKRVDTLHMTR	HLA-A*31:01	28.00				
LTA	351	359	9	RVDTLHMTR	HLA-A*31:01	18.00				
LTA	351	363	13	RVDTLHMTREEML	HLA-C*05:01	40.00				
LTA	353	366	14	DTLHMTREEMLTER	HLA-A*33:01	11.00	HLA-A*68:01	39.00		
LTA	354	362	9	TLHMTREEM	HLA-C*14:02	14.00				
LTA	354	363	10	TLHMTREEML	HLA-C*14:02	34.00				
LTA	354	367	14	TLHMTREEMLTERF	HLA-C*14:02	50.00				
LTA	355	362	8	LHMTREEM	HLA-C*07:01	15.00	HLA-C*14:02	50.00		
LTA	355	363	9	LHMTREEML	HLA-C*07:01	13.00				
LTA	357	366	10	MTREEMLTER	HLA-A*68:01	33.00				
LTA	357	370	14	MTREEMLTERFNHI	HLA-A*30:01	12.00	HLA-C*12:03	16.00		
LTA	358	370	13	TREEMLTERFNHI	HLA-C*07:01	38.00				
LTA	358	371	14	TREEMLTERFNHIL	HLA-B*39:01	18.00	HLA-C*06:02	40.00	HLA-C*07:01	23.00
LTA	359	371	13	REEMLTERFNHIL	HLA-B*40:01	4.00	HLA-B*40:02	42.00		
LTA	360	367	8	EEMLTERF	HLA-B*44:02	47.00	HLA-B*44:03	33.00	HLA-B*44:03	33.00
LTA	360	371	12	EEMLTERFNHIL	HLA-B*40:01	48.00				

LTA	362	370	9	MLTERFNHI	HLA-A*02:01	36.00	HLA-A*02:06	5.00	HLA-B*08:01	26.00	HLA-C*12:03	37.00
LTA	362	373	12	MLTERFNHLDK	HLA-A*03:01	47.00						
LTA	364	371	8	TERFNHIL	HLA-B*40:02	40.00						
LTA	365	374	10	ERFNHILDKM	HLA-C*07:01	34.00						
LTA	365	376	12	ERFNHILDKMDL	HLA-C*06:02	30.00	HLA-C*07:01	27.00				
LTA	365	377	13	ERFNHILDKMDLI	HLA-C*06:02	15.00	HLA-C*07:01	12.00				
LTA	369	380	12	HILDKMDLIFGA	HLA-A*02:06	33.00						
LTA	370	378	9	ILDKMDLIF	HLA-C*05:01	5.00						
LTA	373	380	8	KMDLIFGA	HLA-A*02:06	37.00						
LTA	373	385	13	KMDLIFGAHGNV	HLA-A*02:01	50.00	HLA-A*02:06	13.00				
LTA	376	385	10	LIFGAHGNV	HLA-A*02:06	26.00						
LTA	376	386	11	LIFGAHGNV	HLA-C*03:03	27.00						
LTA	376	389	14	LIFGAHGNVLEQY	HLA-A*29:02	16.00						
LTA	377	389	13	IFGAHGNVLEQY	HLA-A*29:02	22.00						
LTA	377	390	14	IFGAHGNVLEQYM	HLA-C*14:02	40.00						
LTA	378	386	9	FGAHGNV	HLA-C*03:03	4.00						
LTA	378	390	13	FGAHGNVLEQYM	HLA-C*03:03	16.00						
LTA	379	386	8	GAHGNV	HLA-C*03:03	9.00						
LTA	379	390	12	GAHGNVLEQYM	HLA-C*03:03	38.00						
LTA	380	390	11	AHGNVLEQYM	HLA-C*07:01	46.00						
LTA	383	390	8	NAVLEQYM	HLA-C*03:03	35.00						
LTA	383	396	14	NAVLEQYMAGV	HLA-C*03:03	42.00						
LTA	384	393	10	AVLEQYMAGV	HLA-A*02:06	9.00						
LTA	384	396	13	AVLEQYMAGV	HLA-A*02:06	24.00						
LTA	385	393	9	VLEQYMAGV	HLA-A*02:01	38.00						
LTA	386	395	10	LEQYMAGV	HLA-B*44:02	29.00						
LTA	386	396	11	LEQYMAGV	HLA-B*40:01	21.00						
LTA	387	399	13	EQYMAGV	HLA-B*39:01	18.00						
LTA	387	400	14	EQYMAGV	HLA-B*39:01	24.00						
LTA	388	395	8	QYMAGV	HLA-C*14:02	22.00						
LTA	388	396	9	QYMAGV	HLA-C*14:02	10.00						



LTA	388	399	12	QYMAGVAWLHCL	HLA-A*24:02	43.00	HLA-C*14:02	6.00					
LTA	388	400	13	QYMAGVAWLHCLL	HLA-C*14:02	5.00							
LTA	389	396	8	YMAGVAWL	HLA-A*02:06	9.00	HLA-C*03:03	20.00					
LTA	389	397	9	YMAGVAWLH	HLA-A*29:02	10.00							
LTA	389	399	11	YMAGVAWLHCL	HLA-A*02:01	41.00	HLA-B*39:01	13.00	HLA-C*03:03	28.00			
LTA	389	400	12	YMAGVAWLHCLL	HLA-A*02:01	6.00	HLA-A*02:06	8.00	HLA-B*39:01	13.00	HLA-C*03:03	21.00	
LTA	389	402	14	YMAGVAWLHCLLPK	HLA-A*03:01	32.00	HLA-A*11:01	22.00					
LTA	392	402	11	GVAWLHCLLPK	HLA-A*11:01	48.00							
LTA	393	400	8	VAWLHCLL	HLA-C*03:03	21.00							
LTA	395	406	12	WLHCLLPKMDSV	HLA-A*02:01	21.00	HLA-A*02:06	16.00					
LTA	398	406	9	CLLPKMDSV	HLA-A*02:01	40.00	HLA-A*02:06	11.00					
LTA	398	411	14	CLLPKMDSVIFDFL	HLA-A*02:06	34.00							
LTA	400	408	9	LPKMDSVIF	HLA-B*35:01	15.00							
LTA	400	410	11	LPKMDSVIFDF	HLA-B*35:01	34.00							
LTA	402	410	9	KMDSVIFDF	HLA-A*32:01	48.00							
LTA	402	411	10	KMDSVIFDFL	HLA-A*02:01	32.00	HLA-A*02:06	45.00					
LTA	402	414	13	KMDSVIFDFLHCI	HLA-A*02:01	7.00	HLA-A*02:06	18.00					
LTA	402	415	14	KMDSVIFDFLHCIV	HLA-A*02:01	13.00	HLA-A*02:06	18.00					
LTA	405	415	11	SVIFDFLHCIV	HLA-A*68:02	37.00							
LTA	405	416	12	SVIFDFLHCIVF	HLA-B*15:01	38.00							
LTA	405	418	14	SVIFDFLHCIVFNV	HLA-A*02:01	25.00	HLA-A*02:06	6.00	HLA-A*68:02	7.00			
LTA	406	414	9	VIFDFLHCI	HLA-A*02:01	9.00	HLA-A*02:06	14.00	HLA-C*12:03	24.00			
LTA	406	415	10	VIFDFLHCIV	HLA-A*02:06	35.00	HLA-C*12:03	39.00					
LTA	406	418	13	VIFDFLHCIVFNV	HLA-A*02:01	3.00	HLA-A*02:06	6.00	HLA-A*68:02	23.00			
LTA	408	418	11	FDLHCIVFNV	HLA-B*40:02	41.00							
LTA	409	420	12	DFLHCIVFNVPK	HLA-A*33:01	15.00							
LTA	409	421	13	DFLHCIVFNVPKR	HLA-A*33:01	16.00							
LTA	409	422	14	DFLHCIVFNVPKRR	HLA-A*33:01	7.00							
LTA	410	418	9	FLHCIVFNV	HLA-A*02:01	4.00	HLA-A*02:06	8.00	HLA-A*68:02	28.00			
LTA	410	421	12	FLHCIVFNVPKR	HLA-A*68:01	43.00							
LTA	412	420	9	HCIVFNVPK	HLA-A*30:01	46.00							

LTA	413	420	8	CIVFNVPK	HLA-A*11:01	40.00							
LTA	413	421	9	CIVFNVPKR	HLA-A*68:01	39.00							
LTA	414	421	8	IVFNVPKR	HLA-A*31:01	27.00	HLA-A*68:01	13.00					
LTA	414	422	9	IVFNVPKRR	HLA-A*31:01	33.00	HLA-A*68:01	28.00					
LTA	414	424	11	IVFNVPKRRYW	HLA-B*58:01	31.00							
LTA	414	426	13	IVFNVPKRRYWLF	HLA-A*23:01	42.00							
LTA	414	427	14	IVFNVPKRRYWLFK	HLA-A*03:01	26.00	HLA-A*11:01	14.00	HLA-A*30:01	31.00	HLA-A*68:01	17.00	
LTA	418	426	9	VPKRRYWLF	HLA-B*08:01	17.00							
LTA	419	427	9	PKRRYWLFK	HLA-A*30:01	50.00							
LTA	420	427	8	KRRYWLFK	HLA-A*30:01	8.00							
LTA	421	428	8	RRYWLFKG	HLA-B*27:05	47.00							
LTA	421	430	10	RRYWLFKGPI	HLA-B*27:05	10.00							
LTA	421	434	14	RRYWLFKGPIDSGK	HLA-B*27:05	17.00							
LTA	422	430	9	RYWLFKGPI	HLA-C*14:02	10.00							
LTA	422	434	13	RYWLFKGPIDSGK	HLA-A*31:01	21.00							
LTA	423	430	8	YWLFKGPI	HLA-C*14:02	18.00							
LTA	424	437	14	WLFKGPIDSGKTTL	HLA-A*02:01	50.00							
LTA	428	437	10	GPIDSGKTTL	HLA-B*07:02	43.00	HLA-C*03:03	34.00					
LTA	435	448	14	TTLAAGLLDLCGGK	HLA-A*11:01	33.00							
LTA	437	444	8	LAAGLLDL	HLA-C*03:03	5.00							
LTA	437	450	14	LAAGLLDLCGGKAL	HLA-C*03:03	3.00							
LTA	440	452	13	GLLDLCGGKALNV	HLA-A*02:01	14.00	HLA-A*02:06	23.00					
LTA	441	450	10	LLDLCGGKAL	HLA-C*05:01	50.00	HLA-C*08:02	46.00					
LTA	448	456	9	KALNVNLP	HLA-B*58:01	18.00	HLA-C*03:03	18.00					
LTA	448	458	11	KALNVNLP	HLA-A*31:01	19.00							
LTA	448	459	12	KALNVNLP	HLA-C*03:03	40.00							
LTA	448	461	14	KALNVNLP	HLA-A*32:01	27.00	HLA-B*58:01	11.00					
LTA	451	458	8	NVNLP	HLA-A*68:01	31.00							
LTA	451	463	13	NVNLP	HLA-A*68:02	27.00							
LTA	454	461	8	LP	HLA-B*35:01	7.00	HLA-B*53:01	24.00					
LTA	454	463	10	LP	HLA-B*07:02	39.00							

LTA	454	467	14	LPMERLTFELGVAI	HLA-B*07:02	16.00	HLA-B*35:01	43.00	HLA-C*12:03	19.00		
LTA	456	463	8	MERLTFEL	HLA-B*40:02	20.00						
LTA	456	467	12	MERLTFELGVAI	HLA-B*40:02	27.00						
LTA	459	467	9	LTFELGVAI	HLA-A*02:06	40.00	HLA-A*32:01	18.00	HLA-A*68:02	29.00	HLA-C*12:03	19.00
LTA	459	470	12	LTFELGVAIDQY	HLA-A*29:02	31.00						
LTA	459	472	14	LTFELGVAIDQYMV	HLA-A*02:01	43.00	HLA-A*02:06	24.00	HLA-A*68:02	12.00	HLA-C*12:03	48.00
LTA	460	467	8	TFELGVAI	HLA-C*14:02	48.00						
LTA	461	471	11	FELGVAIDQYM	HLA-B*40:01	30.00	HLA-C*03:03	17.00				
LTA	461	472	12	FELGVAIDQYMV	HLA-B*40:02	24.00						
LTA	461	473	13	FELGVAIDQYMVV	HLA-B*40:01	22.00	HLA-B*40:02	32.00				
LTA	461	474	14	FELGVAIDQYMVVF	HLA-B*18:01	5.00	HLA-B*40:01	15.00	HLA-B*40:02	35.00		
LTA	465	472	8	VAIDQYMV	HLA-C*03:03	11.00	HLA-C*12:03	19.00				
LTA	465	473	9	VAIDQYMVV	HLA-C*03:03	4.00	HLA-C*12:03	10.00				
LTA	465	474	10	VAIDQYMVVF	HLA-C*03:03	5.00	HLA-C*12:03	33.00				
LTA	465	477	13	VAIDQYMVVFEDV	HLA-C*03:03	8.00						
LTA	466	474	9	AIDQYMVVF	HLA-C*05:01	34.00						
LTA	469	477	9	QYMVVFEDV	HLA-C*14:02	19.00						
LTA	470	477	8	YMVVFEDV	HLA-A*02:06	14.00						
LTA	471	478	8	MVVFEDVK	HLA-A*68:01	11.00						
LTA	472	485	14	VVFEDVKGTGAESK	HLA-A*11:01	42.00						
LTA	482	493	12	AESKDLPSGHGI	HLA-B*40:01	31.00						
LTA	487	499	13	LPSGHGINNLSL	HLA-B*07:02	22.00	HLA-B*35:01	42.00				
LTA	492	500	9	GINNLSLR	HLA-A*31:01	33.00						
LTA	498	509	12	SLRDYLDGSVKV	HLA-A*02:01	41.00						
LTA	502	509	8	YLDGSVKV	HLA-A*02:06	15.00	HLA-C*05:01	48.00	HLA-C*12:03	45.00		
LTA	502	511	10	YLDGSVKVNL	HLA-A*02:01	32.00	HLA-C*05:01	28.00				
LTA	505	513	9	GSVKVNLEK	HLA-A*11:01	28.00						
LTA	505	518	14	GSVKVNLEKKHLNK	HLA-A*11:01	26.00						
LTA	506	513	8	SVKVNLEK	HLA-A*30:01	10.00						
LTA	506	518	13	SVKVNLEKKHLNK	HLA-A*11:01	47.00	HLA-A*30:01	14.00				
LTA	506	519	14	SVKVNLEKKHLNKR	HLA-A*31:01	29.00						

LTA	508	518	11	KVNLEKKHLNK	HLA-A*30:01	27.00			
LTA	508	519	12	KVNLEKKHLNKR	HLA-A*31:01	26.00			
LTA	518	527	10	KRTQIFPPGL	HLA-B*27:05	26.00			
LTA	521	528	8	QIFPPGLV	HLA-A*68:02	26.00	HLA-C*12:03	47.00	
LTA	521	530	10	QIFPPGLVTM	HLA-C*12:03	17.00			
LTA	521	533	13	QIFPPGLVTMNEY	HLA-A*29:02	24.00			
LTA	522	530	9	IFPPGLVTM	HLA-C*14:02	24.00			
LTA	522	535	14	IFPPGLVTMNEYPV	HLA-C*14:02	28.00			
LTA	523	530	8	FPPGLVTM	HLA-B*35:01	8.00			
LTA	523	533	11	FPPGLVTMNEY	HLA-B*35:01	7.00			
LTA	526	535	10	GLVTMNEYPV	HLA-A*02:01	20.00			
LTA	527	535	9	LVTMNEYPV	HLA-A*68:02	27.00			
LTA	528	535	8	VTMNEYPV	HLA-A*02:06	15.00	HLA-A*68:02	23.00	
LTA	528	537	10	VTMNEYVVPK	HLA-A*03:01	43.00	HLA-A*11:01	12.00	
LTA	528	539	12	VTMNEYVVPKTL	HLA-C*03:03	18.00			
LTA	529	537	9	TMNEYVVPK	HLA-A*11:01	17.00	HLA-A*31:01	39.00	
LTA	529	542	14	TMNEYVVPKTLQAR	HLA-A*31:01	16.00			
LTA	531	539	9	NEYVVPKTL	HLA-B*18:01	12.00	HLA-C*12:03	23.00	
LTA	531	542	12	NEYVVPKTLQAR	HLA-B*18:01	39.00			
LTA	531	543	13	NEYVVPKTLQARF	HLA-B*18:01	8.00			
LTA	532	539	8	EYPVPKTL	HLA-C*14:02	14.00			
LTA	532	545	14	EYPVPKTLQARFVR	HLA-A*33:01	43.00			
LTA	533	543	11	YPVPKTLQARF	HLA-B*35:01	11.00			
LTA	533	544	12	YPVPKTLQARFV	HLA-C*12:03	14.00			
LTA	537	544	8	KTLQARFV	HLA-A*02:06	44.00	HLA-A*30:01	29.00	HLA-C*15:02 28.00
LTA	537	545	9	KTLQARFVR	HLA-A*31:01	8.00			
LTA	537	547	11	KTLQARFVRQI	HLA-A*32:01	32.00			
LTA	537	549	13	KTLQARFVRQIDF	HLA-A*32:01	37.00			
LTA	537	550	14	KTLQARFVRQIDFR	HLA-A*31:01	11.00			
LTA	538	545	8	TLQARFVR	HLA-A*31:01	19.00			
LTA	538	550	13	TLQARFVRQIDFR	HLA-A*31:01	26.00			

LTA	539	549	11	LQARFVRQIDF	HLA-B*15:01	45.00				
LTA	539	550	12	LQARFVRQIDFR	HLA-A*31:01	44.00				
LTA	540	550	11	QARFVRQIDFR	HLA-A*31:01	45.00	HLA-A*33:01	35.00	HLA-A*68:01	47.00
LTA	540	552	13	QARFVRQIDFRPK	HLA-A*30:01	10.00				
LTA	541	552	12	ARFVRQIDFRPK	HLA-B*27:05	44.00				
LTA	542	550	9	RFVRQIDFR	HLA-A*31:01	12.00				
LTA	543	550	8	FVRQIDFR	HLA-A*33:01	33.00	HLA-A*68:01	16.00		
LTA	543	556	14	FVRQIDFRPKIYLR	HLA-A*31:01	23.00	HLA-A*33:01	13.00	HLA-A*68:01	17.00
LTA	545	552	8	RQIDFRPK	HLA-A*11:01	26.00	HLA-A*30:01	26.00	HLA-A*31:01	46.00
LTA	545	553	9	RQIDFRPKI	HLA-A*02:06	42.00				
LTA	545	554	10	RQIDFRPKIY	HLA-B*15:01	16.00				
LTA	545	556	12	RQIDFRPKIYLR	HLA-A*31:01	5.00				
LTA	545	557	13	RQIDFRPKIYLRK	HLA-A*11:01	19.00	HLA-A*30:01	34.00		
LTA	548	556	9	DFRPKIYLR	HLA-A*33:01	3.00				
LTA	550	559	10	RPKIYLRKSL	HLA-B*07:02	10.00				
LTA	552	559	8	KIYLRKSL	HLA-C*14:02	22.00				
LTA	552	565	14	KIYLRKSLQNSEFL	HLA-C*14:02	48.00				
LTA	553	564	12	IYLRKSLQNSEF	HLA-A*23:01	31.00	HLA-A*24:02	27.00	HLA-C*14:02	10.00
LTA	553	565	13	IYLRKSLQNSEFL	HLA-A*24:02	30.00	HLA-C*14:02	7.00		
LTA	553	566	14	IYLRKSLQNSEFLL	HLA-A*23:01	45.00	HLA-A*24:02	41.00	HLA-C*14:02	20.00
LTA	554	564	11	YLRKSLQNSEF	HLA-B*15:01	30.00				
LTA	557	564	8	KSLQNSEF	HLA-B*58:01	19.00				
LTA	557	565	9	KSLQNSEFL	HLA-B*58:01	43.00	HLA-C*15:02	19.00		
LTA	557	566	10	KSLQNSEFLL	HLA-C*15:02	44.00				
LTA	557	568	12	KSLQNSEFLLEK	HLA-A*11:01	29.00	HLA-A*30:01	23.00		
LTA	557	570	14	KSLQNSEFLLEKRI	HLA-C*15:02	43.00				
LTA	558	566	9	SLQNSEFLL	HLA-A*02:01	23.00				
LTA	559	566	8	LQNSEFLL	HLA-A*02:06	42.00				
LTA	559	568	10	LQNSEFLLEK	HLA-A*11:01	47.00				
LTA	562	575	14	SEFLLEKRILQSGM	HLA-B*40:02	39.00				
LTA	564	571	8	FLLEKRIL	HLA-C*03:03	14.00				

LTA	564	575	12	FLLEKRILQSGM	HLA-A*02:01	28.00								
LTA	564	577	14	FLLEKRILQSGMTL	HLA-A*02:01	9.00	HLA-A*02:06	12.00	HLA-C*03:03	10.00	HLA-C*12:03	44.00	HLA-C*14:02	30.00
LTA	566	577	12	LEKRILQSGMTL	HLA-B*40:01	39.00								
LTA	568	577	10	KRILQSGMTL	HLA-B*27:05	44.00								
LTA	568	579	12	KRILQSGMTLLL	HLA-B*27:05	42.00								
LTA	568	580	13	KRILQSGMTLLLL	HLA-B*27:05	40.00								
LTA	568	581	14	KRILQSGMTLLLLL	HLA-B*27:05	35.00								
LTA	570	578	9	ILQSGMTLL	HLA-A*02:01	35.00								
LTA	570	581	12	ILQSGMTLLLLL	HLA-A*02:01	32.00								
LTA	571	578	8	LQSGMTLL	HLA-A*02:06	38.00								
LTA	571	579	9	LQSGMTLLL	HLA-B*39:01	31.00								
LTA	571	580	10	LQSGMTLLLL	HLA-A*02:06	39.00	HLA-B*15:01	44.00						
LTA	571	582	12	LQSGMTLLLLLI	HLA-A*02:06	35.00								
LTA	571	584	14	LQSGMTLLLLLIWF	HLA-B*15:01	43.00								
LTA	572	583	12	QSGMTLLLLLIW	HLA-B*58:01	11.00								
LTA	572	585	14	QSGMTLLLLLIWFR	HLA-A*33:01	40.00								
LTA	573	583	11	SGMTLLLLLIW	HLA-B*58:01	14.00								
LTA	573	585	13	SGMTLLLLLIWFR	HLA-A*31:01	34.00								
LTA	574	585	12	GMTLLLLLIWFR	HLA-A*31:01	16.00	HLA-A*33:01	27.00						
LTA	575	583	9	MTLLLLLIW	HLA-B*58:01	5.00								
LTA	575	585	11	MTLLLLLIWFR	HLA-A*31:01	9.00	HLA-A*33:01	3.00	HLA-A*68:01	9.00				
LTA	575	587	13	MTLLLLLIWFRPV	HLA-A*02:06	15.00	HLA-A*68:02	25.00						
LTA	576	585	10	TLLLLLIWFR	HLA-A*31:01	26.00	HLA-A*33:01	11.00						
LTA	576	587	12	TLLLLLIWFRPV	HLA-A*02:01	28.00	HLA-A*02:06	46.00						
LTA	577	585	9	LLLLLIWFR	HLA-A*31:01	15.00	HLA-A*33:01	5.00						
LTA	577	587	11	LLLLLIWFRPV	HLA-A*02:01	38.00								
LTA	578	585	8	LLLLIWFR	HLA-A*31:01	15.00	HLA-A*33:01	7.00						
LTA	578	587	10	LLLLIWFRPV	HLA-A*02:01	25.00	HLA-A*02:06	20.00						
LTA	579	587	9	LLLIWFRPV	HLA-A*02:01	16.00	HLA-A*02:06	16.00						
LTA	580	587	8	LLIWFRPV	HLA-A*02:06	11.00								
LTA	580	591	12	LLIWFRPVADFA	HLA-A*02:06	47.00								

LTA	587	594	8	VADFATDI	HLA-C*05:01	6.00								
LTA	587	598	12	VADFATDIQSRI	HLA-C*05:01	4.00								
LTA	587	599	13	VADFATDIQSRIV	HLA-C*05:01	6.00								
LTA	590	597	8	FATDIQSR	HLA-A*68:01	15.00								
LTA	590	598	9	FATDIQSRI	HLA-A*68:02	31.00	HLA-C*03:03	5.00	HLA-C*12:03	6.00	HLA-C*12:03	6.00		
LTA	590	599	10	FATDIQSRIV	HLA-C*03:03	6.00								
LTA	590	601	12	FATDIQSRIVEW	HLA-B*53:01	5.00	HLA-B*58:01	19.00						
LTA	590	602	13	FATDIQSRIVEWK	HLA-A*68:01	13.00								
LTA	591	598	8	ATDIQSRI	HLA-C*05:01	34.00								
LTA	593	604	12	DIQSRIVEWKER	HLA-A*33:01	42.00								
LTA	597	604	8	RIVEWKER	HLA-A*31:01	45.00								
LTA	599	612	14	VEWKERLDSEISMY	HLA-B*18:01	30.00								
LTA	604	612	9	RLDSEISMY	HLA-C*05:01	6.00								
LTA	604	614	11	RLDSEISMYTF	HLA-C*05:01	6.00								
LTA	604	617	14	RLDSEISMYTFSRM	HLA-C*05:01	28.00								
LTA	606	616	11	DSEISMYTFSR	HLA-A*68:01	30.00								
LTA	607	614	8	SEISMYTF	HLA-B*40:01	43.00	HLA-B*40:02	45.00	HLA-B*44:02	33.00	HLA-B*44:03	11.00	HLA-B*44:03	11.00
LTA	607	617	11	SEISMYTFSRM	HLA-B*44:03	28.00	HLA-B*44:03	28.00						
LTA	607	619	13	SEISMYTFSRMKY	HLA-B*18:01	19.00	HLA-B*44:02	26.00	HLA-B*44:03	8.00	HLA-B*44:03	8.00		
LTA	608	616	9	EISMYTFSR	HLA-A*33:01	5.00	HLA-A*68:01	6.00						
LTA	608	618	11	EISMYTFSRMK	HLA-A*68:01	21.00								
LTA	608	621	14	EISMYTFSRMKYNI	HLA-A*68:02	19.00								
LTA	609	616	8	ISMYTFSR	HLA-A*11:01	25.00	HLA-A*31:01	8.00	HLA-A*33:01	18.00	HLA-A*68:01	9.00		
LTA	609	617	9	ISMYTFSRM	HLA-B*58:01	38.00	HLA-C*03:03	10.00						
LTA	609	618	10	ISMYTFSRMK	HLA-A*03:01	19.00	HLA-A*11:01	17.00						
LTA	609	619	11	ISMYTFSRMKY	HLA-B*58:01	24.00								
LTA	609	621	13	ISMYTFSRMKYNI	HLA-B*58:01	50.00								
LTA	610	617	8	SMYTFSRM	HLA-C*14:02	20.00								
LTA	610	618	9	SMYTFSRMK	HLA-A*03:01	14.00	HLA-A*11:01	13.00						
LTA	610	619	10	SMYTFSRMKY	HLA-A*03:01	18.00	HLA-A*11:01	41.00	HLA-A*29:02	17.00	HLA-B*15:01	19.00		
LTA	610	621	12	SMYTFSRMKYNI	HLA-A*02:01	37.00	HLA-A*32:01	25.00						

LTA	610	623	14	SMYTFSRMKYNICM	HLA-C*14:02	23.00								
LTA	611	619	9	MYTFSRMKY	HLA-A*29:02	16.00	HLA-C*14:02	26.00						
LTA	611	621	11	MYTFSRMKYNI	HLA-A*23:01	24.00	HLA-C*14:02	26.00						
LTA	611	623	13	MYTFSRMKYNICM	HLA-C*14:02	10.00								
LTA	612	619	8	YTFSRMKY	HLA-A*25:01	43.00	HLA-A*26:01	15.00	HLA-A*29:02	4.00	HLA-A*68:01	33.00	HLA-A*80:01	46.00
LTA	612	621	10	YTFSRMKYNI	HLA-A*68:02	31.00	HLA-C*12:03	14.00						
LTA	612	623	12	YTFSRMKYNICM	HLA-C*03:03	50.00	HLA-C*12:03	25.00	HLA-C*14:02	42.00				
LTA	612	625	14	YTFSRMKYNICMGK	HLA-A*03:01	29.00	HLA-A*11:01	17.00	HLA-A*68:01	5.00				
LTA	615	623	9	SRMKYNICM	HLA-B*27:05	47.00	HLA-B*39:01	25.00	HLA-C*06:02	28.00	HLA-C*07:01	19.00		
LTA	615	627	13	SRMKYNICMGKCI	HLA-C*07:01	36.00								
LTA	615	628	14	SRMKYNICMGKCIL	HLA-B*39:01	10.00	HLA-C*07:01	32.00						
LTA	616	623	8	RMKYNICM	HLA-A*30:01	39.00								
LTA	616	625	10	RMKYNICMGK	HLA-A*03:01	14.00	HLA-A*31:01	18.00						
LTA	616	628	13	RMKYNICMGKCIL	HLA-A*30:01	47.00								
LTA	617	625	9	MKYNICMGK	HLA-A*68:01	48.00								
LTA	618	625	8	KYNICMGK	HLA-A*30:01	44.00	HLA-A*31:01	37.00						
LTA	619	628	10	YNICMGKCIL	HLA-C*03:03	35.00								
LTA	620	632	13	NICMGKCILDITR	HLA-A*33:01	50.00								
LTA	621	628	8	ICMGKCIL	HLA-C*03:03	14.00								
LTA	649	657	9	SQSQCSSQV	HLA-A*02:06	48.00								
LTA	655	662	8	SQVSDTSA	HLA-A*02:06	33.00								
LTA	655	664	10	SQVSDTSAPA	HLA-A*02:06	33.00								
LTA	656	664	9	QVSDTSAPA	HLA-A*68:02	17.00								
LTA	656	669	14	QVSDTSAPAEDSQR	HLA-A*68:01	17.00								
LTA	659	669	11	DTSAPAEDSQR	HLA-A*68:01	11.00								
LTA	660	669	10	TSAPAEDSQR	HLA-A*68:01	20.00								
LTA	668	677	10	QRSDPHSQEL	HLA-C*06:02	24.00	HLA-C*07:01	15.00						
LTA	668	679	12	QRSDPHSQELHL	HLA-C*07:01	46.00								
LTA	669	677	9	RSDPHSQEL	HLA-C*05:01	6.00	HLA-C*15:02	15.00						
LTA	669	679	11	RSDPHSQELHL	HLA-C*05:01	5.00	HLA-C*15:02	47.00						
LTA	669	681	13	RSDPHSQELHLCK	HLA-A*11:01	33.00								



LTA	673	681	9	HSQELHLCK	HLA-A*11:01	34.00								
LTA	676	688	13	ELHLCKGFQCFCR	HLA-A*33:01	30.00								
LTA	678	686	9	HLCKGFQCF	HLA-B*15:01	42.00								
LTA	678	687	10	HLCKGFQCFC	HLA-A*03:01	29.00								
LTA	678	688	11	HLCKGFQCFCR	HLA-A*31:01	35.00	HLA-A*33:01		44.00					
LTA	679	687	9	LCKGFQCFC	HLA-A*30:01	24.00								
LTA	681	688	8	KGFQCFCR	HLA-A*31:01	22.00								
LTA	685	695	11	CFKRPKTPPPK	HLA-A*30:01	34.00								
stA	6	13	8	NREESMEL	HLA-C*07:01	33.00								
stA	6	14	9	NREESMELM	HLA-C*07:01	30.00								
stA	6	17	12	NREESMELMDLL	HLA-C*07:01	49.00								
stA	7	14	8	REESMELM	HLA-B*40:01	28.00								
stA	7	17	11	REESMELMDLL	HLA-B*40:01	7.00								
stA	7	19	13	REESMELMDLLGL	HLA-B*40:01	7.00								
stA	9	17	9	ESMELMDLL	HLA-A*68:02	7.00								
stA	9	19	11	ESMELMDLLGL	HLA-A*68:02	23.00								
stA	9	21	13	ESMELMDLLGLER	HLA-A*33:01	35.00	HLA-A*68:01		18.00					
stA	9	22	14	ESMELMDLLGLERA	HLA-A*68:02	26.00								
stA	11	19	9	MELMDLLGL	HLA-B*40:01	20.00	HLA-B*40:02		28.00					
stA	11	24	14	MELMDLLGLERAAW	HLA-B*18:01	24.00	HLA-B*44:02		18.00	HLA-B*44:03	22.00	HLA-B*44:03	22.00	
stA	12	21	10	ELMDLLGLER	HLA-A*33:01	48.00	HLA-A*68:01		34.00					
stA	19	29	11	LERAAGNLPL	HLA-B*40:01	28.00	HLA-B*40:02		40.00					
stA	20	29	10	ERAAGNLPL	HLA-B*39:01	7.00								
stA	21	29	9	RAAWGNLPL	HLA-B*07:02	10.00	HLA-C*03:03		6.00					
stA	21	30	10	RAAWGNLPLM	HLA-C*03:03	38.00								
stA	21	31	11	RAAWGNLPLMR	HLA-A*31:01	37.00								
stA	21	32	12	RAAWGNLPLMRK	HLA-A*03:01	43.00	HLA-A*11:01		25.00					
stA	21	34	14	RAAWGNLPLMRKAY	HLA-B*35:01	26.00								
stA	22	29	8	AAGNLPL	HLA-C*03:03	7.00								
stA	22	30	9	AAGNLPLM	HLA-C*03:03	41.00								
stA	22	34	13	AAGNLPLMRKAY	HLA-B*35:01	44.00								

stA	22	35	14	AAWGNLPLMRKAYL	HLA-C*03:03	10.00			
stA	27	34	8	LPLMRKAY	HLA-B*35:01	8.00			
stA	27	35	9	LPLMRKAYL	HLA-B*07:02	35.00	HLA-B*08:01	13.00	
stA	29	36	8	LMRKAYLR	HLA-A*31:01	13.00			
stA	29	37	9	LMRKAYLRK	HLA-A*03:01	27.00	HLA-A*30:01	7.00	
stA	29	39	11	LMRKAYLRKCK	HLA-A*30:01	19.00			
stA	29	41	13	LMRKAYLRKCKEF	HLA-B*15:01	30.00			
stA	32	39	8	KAYLRKCK	HLA-A*30:01	50.00			
stA	32	45	14	KAYLRKCKEFHPDK	HLA-A*03:01	45.00	HLA-A*30:01	25.00	
stA	33	41	9	AYLRKCKEF	HLA-C*14:02	13.00			
stA	37	45	9	KCKEFHPDK	HLA-A*30:01	6.00			
stA	41	52	12	FHPDKGGDEDKM	HLA-C*07:01	31.00	HLA-C*14:02	45.00	
stA	48	59	12	DEDKMKRMNTLY	HLA-B*18:01	14.00			
stA	51	58	8	KMKRMNTL	HLA-A*30:01	26.00			
stA	51	59	9	KMKRMNTLY	HLA-A*30:01	33.00	HLA-A*30:02	33.00	HLA-A*80:01 46.00
stA	51	60	10	KMKRMNTLYK	HLA-A*03:01	14.00	HLA-A*11:01	28.00	HLA-A*31:01 16.00
stA	51	61	11	KMKRMNTLYKK	HLA-A*30:01	5.00	HLA-A*31:01	8.00	
stA	52	60	9	MKRMNTLYK	HLA-A*30:01	7.00			
stA	53	61	9	KRMNTLYKK	HLA-B*27:05	17.00			
stA	53	62	10	KRMNTLYKKM	HLA-B*27:05	28.00			
stA	54	61	8	RMNTLYKK	HLA-A*03:01	40.00	HLA-A*11:01	26.00	HLA-A*31:01 10.00
stA	62	70	9	MEQDVKVAH	HLA-B*18:01	41.00			
stA	62	74	13	MEQDVKVAHQPDF	HLA-B*18:01	19.00	HLA-B*44:02	40.00	
stA	67	77	11	KVAHQPDFGTW	HLA-B*58:01	12.00			
stA	70	82	13	HQPDFGTWSSSEV	HLA-A*02:06	23.00			
stA	77	88	12	WSSSEVCADFPL	HLA-C*03:03	26.00			
stA	78	88	11	SSSEVCADFPL	HLA-A*68:02	38.00			
stA	80	88	9	SEVCADFPL	HLA-B*40:01	3.00			
stA	80	93	14	SEVCADFPLCPDTL	HLA-B*40:01	7.00			
stA	81	88	8	EVCADFPL	HLA-A*68:02	22.00			
stA	83	94	12	CADFPLCPDTLY	HLA-A*01:01	29.00	HLA-C*05:01	11.00	

stA	86	93	8	FPLCPDTL	HLA-B*35:01	14.00	HLA-B*53:01	49.00	HLA-C*03:03	28.00	HLA-C*12:03	23.00
stA	86	94	9	FPLCPDTLY	HLA-B*35:01	4.00	HLA-B*53:01	18.00				
stA	86	98	13	FPLCPDTLYCKEW	HLA-B*53:01	15.00						
stA	89	98	10	CPDTLYCKEW	HLA-B*53:01	34.00						
stA	91	104	14	DTLYCKEWPICSKK	HLA-A*68:01	35.00						
stA	92	100	9	TYLCKEWPI	HLA-A*02:01	10.00	HLA-A*02:06	39.00				
stA	92	103	12	TYLCKEWPICSK	HLA-A*03:01	29.00	HLA-A*11:01	37.00				
stA	92	104	13	TYLCKEWPICSKK	HLA-A*03:01	23.00	HLA-A*11:01	45.00				
stA	94	107	14	YCKEWPICSKKPSV	HLA-C*12:03	41.00						
stA	96	107	12	KEWPICSKKPSV	HLA-B*40:02	24.00						
stA	106	117	12	SVHCPMCLCQLR	HLA-A*68:01	31.00						
stA	107	118	12	VHCPMCLCQLRL	HLA-C*07:01	28.00						
stA	112	119	8	MLCQLRLR	HLA-A*33:01	34.00						
stA	112	123	12	MLCQLRLRHLNR	HLA-A*31:01	40.00	HLA-A*33:01	21.00				
stA	114	123	10	CQLRLRHLNR	HLA-A*31:01	47.00						
stA	114	127	14	CQLRLRHLNRKFLR	HLA-A*31:01	12.00						
stA	115	123	9	QLRLRHLNR	HLA-A*33:01	34.00						
stA	115	126	12	QLRLRHLNRKFL	HLA-B*08:01	31.00						
stA	115	127	13	QLRLRHLNRKFLR	HLA-A*31:01	16.00	HLA-A*33:01	17.00				
stA	115	128	14	QLRLRHLNRKFLRK	HLA-A*03:01	35.00	HLA-A*30:01	35.00				
stA	117	124	8	RLRHLNRK	HLA-A*03:01	28.00	HLA-A*30:01	6.00				
stA	117	127	11	RLRHLNRKFLR	HLA-A*31:01	5.00						
stA	117	128	12	RLRHLNRKFLRK	HLA-A*03:01	24.00	HLA-A*30:01	4.00				
stA	119	127	9	RHLNRKFLR	HLA-A*31:01	9.00						
stA	119	132	14	RHLNRKFLRKEPLV	HLA-C*07:01	45.00						
stA	120	127	8	HLNRKFLR	HLA-A*31:01	6.00	HLA-A*33:01	20.00				
stA	120	128	9	HLNRKFLRK	HLA-A*03:01	18.00	HLA-A*11:01	41.00				
stA	120	131	12	HLNRKFLRKEPL	HLA-B*08:01	37.00						
stA	124	131	8	KFLRKEPL	HLA-C*14:02	18.00						
stA	129	137	9	EPLVWIDCY	HLA-B*35:01	23.00						
stA	129	142	14	EPLVWIDCYCIDCF	HLA-B*35:01	45.00						

stA	132	142	11	VWIDCYCIDCF	HLA-A*23:01	31.00				
stA	133	142	10	WIDCYCIDCF	HLA-C*05:01	28.00				
stA	133	146	14	WIDCYCIDCFTQWF	HLA-C*05:01	25.00				
stA	137	148	12	YCIDCFTQWFGL	HLA-C*03:03	10.00				
stA	137	150	14	YCIDCFTQWFGLDL	HLA-C*03:03	6.00				
stA	144	155	12	QWFGLDLTEETL	HLA-C*14:02	31.00				
stA	146	155	10	FGLDLTEETL	HLA-C*03:03	15.00				
stA	146	157	12	FGLDLTEETLQW	HLA-B*58:01	21.00				
stA	146	159	14	FGLDLTEETLQWWV	HLA-A*02:06	24.00				
stA	147	159	13	GLDLTEETLQWWV	HLA-A*02:01	29.00				
stA	150	157	8	LTEETLQW	HLA-B*58:01	25.00				
stA	150	159	10	LTEETLQWWV	HLA-A*02:06	40.00				
stA	151	158	8	TEETLQWW	HLA-B*44:02	15.00	HLA-B*44:03	21.00	HLA-B*44:03	21.00
stA	155	162	8	LQWWVQII	HLA-A*02:06	36.00				
stA	155	167	13	LQWWVQIIGETPF	HLA-B*15:01	29.00				
stA	155	168	14	LQWWVQIIGETPFR	HLA-A*31:01	23.00				
stA	158	168	11	WVQIIGETPFR	HLA-A*68:01	43.00				
stA	159	167	9	VQIIGETPF	HLA-B*15:01	23.00				
stA	159	170	12	VQIIGETPFRDL	HLA-C*03:03	32.00				
stA	160	168	9	QIIGETPFR	HLA-A*68:01	19.00				
stA	160	171	12	QIIGETPFRDLK	HLA-A*11:01	46.00				
stA	163	170	8	GETPFRDL	HLA-B*40:01	19.00				
stA	163	172	10	GETPFRDLKL	HLA-B*40:01	19.00				
stA	164	171	8	ETPFRDLK	HLA-A*68:01	23.00				