

Peptide Arrays, Peptides for MHC Class I Restricted Epitopes of Influenza A Virus, Human Herpesvirus 4 (HHV-4), and Human Herpesvirus 5 (HHV-5) Proteins

Catalog No. NR-9308

This reagent is the tangible property of the U.S. Government.

Product Description: NR-9308 contains 23 peptide arrays which consist of major histocompatibility complex (MHC) class I restricted epitopes of influenza A virus, HHV-4, and HHV-5 proteins presented by 11 HLA-A and HLA-B alleles: HLA-A1, two peptides (influenza A virus PB1 and NP); HLA-A2, three peptides (HHV-4 BMLF1; influenza A virus Matrix 1; and HHV-5 pp65); HLA-A3, three peptides (influenza A virus NP; HHV-4 BRLF1 and EBNA3A); HLA-A11, two peptides (HHV-4 EBNA3B and BRLF1); HLA-A24, one peptide (HHV-4 BRLF1); HLA-A68, one peptide (influenza A virus NP); HLA-B7, two peptides (HHV-5 pp65 and HHV-4 EBNA3A); HLA-B8, four peptides (HHV-4 EBNA3A in three locations and BZLF1); HLA-B27, two peptides (HHV-4 EBNA3C and influenza A virus NP); HLA-B35, one peptide (HHV-4 EBNA3A); HLA-B44, two peptides (HHV-4 EBNA3C and HHV-5 pp65). Peptides are 8- to 10-mers.

Lot: P98088A

The following information applies to all peptides:

- Appearance White lyophilized powder
- Mass spectral analysis Correct MW by Electrospray (NRC-1304)
- Counter Ion Correct MW by MALDI-TOF (all other Peptides)
- Trifluoroacetate

Peptide-specific information is shown in the two tables below.

NRC- #	Date of Mfg.	Peptide Epitope	Virus	Protein	Length	Sequence	Hydrophilicity	MW (amu)	Purity by HPLC ^a	Peptide Content ^b
NRC-1292	7/23/2007	HLA A1	Influenza A Virus	PB1	9	591-VSDGGPNLY-599	-0.2	921	>95%	78.5%
NRC-1293	8/20/2007	HLA A1	Influenza A Virus	NP	9	44-CTELKLSDY-52	0.2	1071	>95%	74.8%
NRC-1294	8/9/2007	HLA A2	HHV-4	BMLF1	9	259-GLCTLVAML-267	-1.1	920	>95%	77.5%
NRC-1295	7/30/2007	HLA A2	Influenza A Virus	Matrix 1	9	58-GILGFVFTL-66	-1.4	966	>99%	86.2%
NRC-1296	7/25/2007	HLA A2	HHV-5	pp65	9	495-NLVPMVATV-503	-0.9	943	99%	89.0%
NRC-1297	7/17/2007	HLA A3	Influenza A Virus	NP	9	265-ILRGSVAHK-273	0	980	>95%	56.5%
NRC-1298	7/19/2007	HLA A3	HHV-4	BRLF1	9	148-RVRAYTYSK-156	0.3	1143	>95%	61.3%
NRC-1299	7/17/2007	HLA A3	HHV-4	EBNA3A	9	603-RLRAEAQVK-611	0.9	1070	>95%	61.9%
NRC-1300	7/16/2007	HLA A11	HHV-4	EBNA3B	9	416-IVTDFSVIK-424	-0.4	1021	>95%	81.6%
NRC-1301	7/16/2007	HLA A11	HHV-4	BRLF1	9	134-ATIGTAMYK-143	-0.5	955	>95%	88.3%
NRC-1302	7/17/2007	HLA A24	HHV-4	BRLF1	10	28-DYCNVLNKEF-37	0	1245	>95%	85.1%
NRC-1303	7/16/2007	HLA A68	Influenza A Virus	NP	9	91-KTGGPIYKR-99	0.5	1019	>95%	69.1%
NRC-1304	7/20/2007	HLA B7	HHV-5	pp65	10	417-TPRVTTGGAM-426	-0.1	946	>95%	85.9%
NRC-1305	7/23/2007	HLA B7	HHV-4	EBNA3A	9	379-RPPFIRRL-387	0.1	1167	99%	75.9%
NRC-1306	7/19/2007	HLA B8	HHV-4	EBNA3A	9	158-QAKWRLQTL-166	-0.2	1143	>95%	67.1%
NRC-1307	7/17/2007	HLA B8	HHV-4	EBNA3A	9	325-FLRGRAYGL-333	-0.3	1052	>95%	77.9%
NRC-1308	7/23/2007	HLA B8	HHV-4	BZLF1	8	190-RAKFKQLL-197	0.3	1003	>99%	73.8%
NRC-1309	7/17/2007	HLA B8	Influenza A Virus	NP	9	380-ELRSRYWAI-388	-0.1	1193	>95%	68.6%
NRC-1310	7/16/2007	HLA B27	HHV-4	EBNA3C	9	258-RRIYDLIEL-266	0.3	1190	>95%	69.8%
NRC-1311	7/16/2007	HLA B27	Influenza A Virus	NP	9	383-SRYWAIRTR-391	0.1	1208	>95%	54.7%
NRC-1312	7/18/2007	HLA B35	HHV-4	EBNA3A	9	458-YPLHEQHGM-466	-0.4	1111	>95%	68.6%
NRC-1313	7/23/2007	HLA B44	HHV-4	EBNA3C	10	281-EENLLDFVRF-290	0.2	1281	>99%	89.6%
NRC-1314	7/23/2007	HLA B44	HHV-5	pp65	10	512-EFFWDANDIY-521	-0.4	1319	>95%	90.6%

^a% full-length
^bRemainder is salt and water

Table 2- Amino Acid Analysis																			
		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)
NRC-1292	Expected			2.00			2.00			1.00				1.00	1.00			1.00	1.00
	Actual			1.93			1.98			1.03				1.08	0.97			1.02	0.91
NRC-1293	Expected			1.00	1.00	1.00				2.00	1.00				1.00	1.00		1.00	
	Actual			1.02	0.00 ^a	1.03				2.08	0.98				1.01	0.95		1.02	
NRC-1294	Expected	1.00			1.00		1.00			3.00		1.00				1.00			1.00
	Actual	1.02			0.00 ^a		0.99			3.04		1.03				0.97			1.03
NRC-1295	Expected						2.00		1.00	2.00			2.00			1.00			1.00
	Actual						2.03		1.00	2.05			2.04			0.98			1.01
NRC-1296	Expected	1.00		1.00						1.00		1.00		1.00		1.00			3.00
	Actual	1.00		1.00						1.01		1.02		1.05		0.94			3.07
NRC-1297	Expected	1.00	1.00				1.00	1.00	1.00	1.00	1.00				1.00				1.00
	Actual	0.96	1.02				1.01	1.00	0.98	1.00	1.01				0.97				1.03
NRC-1298	Expected	1.00	2.00								1.00				1.00	1.00		2.00	1.00
	Actual	1.01	2.08								1.09				0.96	0.98		2.02	1.05
NRC-1299	Expected	2.00	2.00			2.00				1.00	1.00								1.00
	Actual	1.99	2.03			1.98				0.98	0.99								1.03
NRC-1300	Expected			1.00					2.00		1.00		1.00		1.00	1.00			2.00
	Actual			1.07					1.65		1.09		1.08		1.03	1.04			1.67
NRC-1301	Expected	2.00					1.00		1.00		1.00	1.00				2.00		1.00	
	Actual	2.04					1.03		1.01		1.03	0.99				1.95		0.99	
NRC-1302	Expected			3.00	1.00	1.00				1.00	1.00		1.00					1.00	1.00
	Actual			3.01	0.00 ^a	0.98				1.02	0.98		1.00					0.99	1.02
NRC-1303	Expected		1.00				2.00		1.00		2.00			1.00		1.00		1.00	
	Actual		1.00				2.03		0.99		2.10			1.05		0.95		0.99	
NRC-1304	Expected	1.00	1.00				3.00					1.00		1.00		2.00			1.00
	Actual	1.03	0.96				3.24					0.93		1.10		1.82			1.02
NRC-1305	Expected		3.00						2.00	1.00			1.00	2.00					
	Actual		2.98						1.95	0.98			0.98	2.14					
NRC-1306	Expected	1.00	1.00			2.00				2.00	1.00					1.00	1.00		
	Actual	0.99	1.04			2.02				2.10	1.00					0.95	0.00 ^b		
NRC-1307	Expected	1.00	2.00				2.00			2.00			1.00					1.00	
	Actual	0.98	2.04				2.03			2.03			0.98					0.99	
NRC-1308	Expected	1.00	1.00			1.00				2.00	2.00		1.00						
	Actual	0.98	1.01			0.98				2.03	2.04		1.00						
NRC-1309	Expected	1.00	2.00			1.00			1.00	1.00	2.04				1.00		1.00	1.00	
	Actual	1.00	2.15			1.00			1.01	1.02	2.04				1.03		0.00 ^b	1.04	
NRC-1310	Expected		2.00	1.00		1.00			2.00	2.00	2.04							1.00	
	Actual		2.03	0.99		0.96			2.01	2.06	2.04							0.99	
NRC-1311	Expected	1.00	3.00						1.00						1.00	1.00	1.00	1.00	
	Actual	1.02	3.05						1.04						0.99	1.01	0.00 ^b	1.06	
NRC-1312	Expected					2.00	1.00	2.00		1.00		1.00		1.00				1.00	
	Actual					1.96	1.03	2.05		1.00		0.99		0.98				1.00	
NRC-1313	Expected		1.00	2.00		2.00				2.00			2.00						1.00
	Actual		1.01	1.98		1.94				2.03			2.03						1.01
NRC-1314	Expected	1.00		3.00		1.00			1.00				2.00					1.00	1.00
	Actual	0.99		2.99		1.02			0.99				2.03					0.00 ^b	0.99

^aCys was completely destroyed during hydrolysis

^bTrp was completely destroyed during hydrolysis

Date: 10 OCT 2007

Signature: Signature on File

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