

Peptide Array, Dengue Virus Type 4 (DEN-4), Singapore/8976/1995, E Protein, Diverse Peptides

Catalog No. NR-9229

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Product Description: NR-9229 contains 10 peptides that represent regions of amino acid sequence diversity in the envelope (E) protein found in dengue virus type 4 (DEN-4), Singapore/8976/1995 (GenPept: Q5UCB8) compared to DEN-4, Dominica/814669/1981. DEN-4, Singapore/8976/1995 E protein is identical to that of DEN-4, Dominica/814669/1981 E protein with the exception of 4 amino acids. A complete 69-peptide array of the E protein of DEN-4, Singapore/8976/1995 can be constructed using these 10 peptides and peptides from DEN-4, Dominica/814669/1981 (BEI Resources NR-512). Peptides are 16- to 18-mers, with 10 amino acid overlaps. Please see Table 1 for length and sequence of individual peptides.

Lot: R680-1 to R680-10

The following information applies to all peptides:

- Appearance
- Mass spectral analysis
- Counter Ion

White lyophilized powder
Correct MW by MALDI-TOF
Trifluoroacetate

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

Table 1							
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC ^a	Peptide Content ^b
23 of 69	6/12/2007	16	149-HAVGNDTSNHGVTATI-164	1593.68	-0.3	93.4%	82.3%
24 of 69	6/12/2007	17	155-TSNHGVATITPRSPSV-171	1724.91	-0.2	97.4%	83.5%
25 of 69	6/12/2007	17	162-ATITPRSPSVEVKLPDY-178	1873.17	0.1	95.5%	84.6%
29 of 69	6/12/2007	18	190-GIDFNEMILMEMKKKTWL-207	2227.77	0.0	92.7%	83.0%
30 of 69	6/12/2007	17	198-LMEMKKKTWLVHKQWFL-214	2246.85	-0.3	91.3%	76.7%
48 of 69	6/12/2007	18	335-VPIEIRDVNKEKVVGRI-352	2063.47	0.5	90.8%	78.4%
49 of 69	6/12/2007	16	343-NKEKVVGRISSSTPLA-358	1698.01	0.2	100.0%	78.8%
50 of 69	6/12/2007	16	349-GRVISSTPLAENTNSV-364	1644.81	0.0	99.0%	87.8%
63 of 69	6/12/2007	18	442-SVYTTMFGGVSWMVRILI-459	2060.52	-1.0	80.1%	90.0%
64 of 69	6/12/2007	17	450-GVSWMVRILIGFLVLWI-466	2002.54	-1.3	Unknown ^c	89.8%

^a% full-length
^bRemainder is salt and water
^cPeptide incompatible with HPLC conditions

Note: Actual amino acid results which are not within 20% of expected results are highlighted in red.

Table 2 - Amino Acid Analysis																			
Peptide		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)
23 of 69	Expected	2.00		3.00			2.00	2.00	1.00						1.00	3.00			2.00
	Actual	2.08		2.87			1.92	1.84	1.03						1.00	2.83			2.20
24 of 69	Expected	1.00	1.00	1.00			1.00	1.00	1.00					2.00	3.00	4.00			2.00
	Actual	1.12	1.13	0.97			1.07	1.06	0.96					2.00	2.60	3.77			1.94
25 of 69	Expected	1.00	1.00	1.00		1.00			1.00	1.00	1.00			3.00	2.00	2.00		1.00	2.00
	Actual	1.12	1.20	1.05		0.87			0.76	0.93	1.00			2.82	1.90	1.75		1.15	1.72
29 of 69	Expected			2.00		2.00	1.00		2.00	2.00	3.00	3.00	1.00			1.00	1.00		
	Actual			1.99		2.00	0.95		1.77	1.78	3.01	2.78	0.86			1.10	0.00 ^a		
30 of 69	Expected					2.00		1.00		3.00	4.00	2.00	1.00			1.00	2.00		1.00
	Actual					1.85		1.00		2.84	4.04	1.80	1.00			0.85	0.00 ^a		0.89
48 of 69	Expected		2.00	2.00		2.00	1.00		3.00		2.00			1.00	0.00				5.00
	Actual		1.88	2.00		1.78	1.15		1.74 ^b		2.17			0.82	0.00				3.37 ^b
49 of 69	Expected	1.00	1.00	1.00		1.00	1.00		1.00	1.00	2.00			1.00	2.00	1.00			3.00
	Actual	1.07	0.96	1.00		0.92	1.11		0.51 ^b	0.88	1.85			1.07	1.97	1.09			1.25 ^b
50 of 69	Expected	1.00	1.00	2.00		1.00	1.00		1.00	1.00				1.00	3.00	2.00			2.00
	Actual	1.17	1.10	2.00		0.99	1.28		0.45 ^b	0.91				1.07	2.70	1.80			1.52 ^b
63 of 69	Expected		1.00				2.00		2.00	1.00		2.00	1.00		2.00	2.00	1.00	1.00	3.00
	Actual		1.20				2.00		1.92	1.14		1.92	1.02		1.81	1.77	0.00 ^a	0.96	2.71
64 of 69	Expected		1.00				2.00		3.00	3.00		1.00	1.00		1.00		2.00		3.00
	Actual		0.89				2.00		2.40	2.69		0.93	1.18		1.18		0.00 ^a		2.76

^aTrp was completely destroyed during hydrolysis

^bVal-Ile, Val-Val, Ile-Ile and/or Ile-Val bonds were only partially destroyed during hydrolysis

Date: 08 AUG 2007

Signature: Signature on File

Title: Technical Manager, BEI Authentication or designee

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