

Peptide Array, Dengue Virus Type 3 (DEN-3), Philippines/H87/1956, E Protein, Diverse Peptides

Catalog No. NR-9228

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Product Description: NR-9228 contains 22 peptides that represent regions of amino acid sequence diversity in the envelope (E) protein found in dengue virus type 3 (DEN-3), Philippines/H87/1956 (GenPept: P27915) compared to DEN-3, Sleman/1978. DEN-3, Philippines/H87/1956 E protein is identical to that of DEN-3, Sleman/1978 E protein with the exception of 11 amino acids. A complete 68-peptide array of the E protein of DEN-3, Philippines/H87/1956 can be constructed using these 22 peptides and peptides from DEN-3, Sleman/1978 (BEI Resources NR-511). Peptides are 12- to 19-mers, with 10 or 11 amino acid overlaps. Please see Table 1 for length and sequence of individual peptides.

Lot: R679-1 to R679-22

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
8 of 68	6/12/2007	18	51-TQLATLRKLCIEGKITNI-68	2015.47	-0.1	86.2%	81.5%
9 of 68	6/12/2007	15	59-LCIEGKITNITDSR-73	1663.92	0.2	90.7%	83.0%
10 of 68	6/12/2007	18	64-KITNITDSRCPTQGEAI-81	1948.21	0.2	83.5%	85.1%
11 of 68	6/12/2007	19	72-SRCPTQGEAILPEEQDQNY-90	2178.34	0.4	86.3%	90.5%
12 of 68	6/12/2007	17	81-ILPEEQDQNYVCKHTYV-97	2079.32	0.0	89.2%	85.9%
13 of 68	6/12/2007	15	87-DQNYVCKHTYVDRGW-101	1884.06	0.0	83.1%	80.5%
22 of 68	6/12/2007	18	149-HQVGNETQGVTAEITSQA-166	1869.98	0.0	92.2%	89.1%
23 of 68	6/12/2007	17	157-GVTAEITSQASTAEAIL-173	1661.88	-0.2	86.1%	87.9%
24 of 68	6/12/2007	18	164-SQASTAEAILPEYGTGL-181	1821.06	-0.3	83.6%	88.9%
31 of 68	6/12/2007	17	213-DLPLPWTSGATTKTPTW-229	1872.16	-0.4	91.1%	89.1%
32 of 68	6/12/2007	17	220-SGATTKTPTWNRKELLV-236	1902.22	0.1	90.7%	80.7%
33 of 68	6/12/2007	18	227-PTWNRKELLVTFKNAHAK-244	2153.56	0.1	82.4%	75.9%
40 of 68	6/12/2007	18	280-HLKCRCLKMDKLLKGMSY-297	2192.81	0.4	83.5%	70.6%
41 of 68	6/12/2007	18	288-DKLKLLKGMSYAMCLNTFV-305	2062.57	-0.2	93.9%	81.9%
42 of 68	6/12/2007	15	296-SYAMCLNTFVLKKEV-310	1746.14	-0.3	95.8%	83.6%
43 of 68	6/12/2007	18	301-LNTFVLKKEVSETQHGTI-318	2044.35	0.0	82.1%	81.8%
53 of 68	6/12/2007	16	377-VIGIGDKALKINWYRK-392	1874.28	0.0	87.5%	76.7%
54 of 68	6/12/2007	18	383-KALKINWYRKGGSSIGKMF-400	2127.62	0.0	84.3%	75.7%
55 of 68	6/12/2007	18	391-RKGSSIGKMFEATARGAR-408	1923.28	0.6	92.6%	73.8%

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Table 1							
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC ^a	Peptide Content ^b
66 of 68	6/12/2007	18	466-LNSKNTSMSFSCIAIGII-483	1899.27	-0.6	81.5%	89.3%
67 of 68	6/12/2007	18	474-SFSCIAIGIITLYLGVVV-491	1868.31	-1.2	Unknown ^c	89.1%
68 of 68	6/12/2007	12	482-IITLYLGVVVQA-493	1288.59	-1.2	Unknown ^c	85.0%

^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)	
8 of 68	Expected	1.00	1.00	1.00	1.00	2.00	1.00		3.00	3.00	2.00					3.00				
	Actual	1.01	1.12	0.98	0.62 ^a	1.87	1.18		2.73	3.00	1.90					2.79				
9 of 68	Expected		1.00	2.00	1.00	1.00	1.00		3.00	1.00	1.00				1.00	3.00				
	Actual		1.00	2.04	0.60 ^a	1.02	1.00		3.03	1.01	0.98				0.84	2.76				
10 of 68	Expected	1.00	1.00	2.00	1.00	2.00	1.00		3.00		1.00			1.00	1.00	4.00				
	Actual	1.00	1.04	1.75	0.55 ^a	1.83	1.03		2.92		0.96			1.05	0.86	3.81				
11 of 68	Expected	1.00	1.00	2.00	1.00	6.00	1.00		1.00	1.00				2.00	1.00	1.00		1.00		
	Actual	1.00	0.90	1.85	0.53 ^a	5.89	1.16		1.04	1.09				1.98	0.75	0.91		1.16		
12 of 68	Expected			2.00	1.00	4.00		1.00	1.00	1.00	1.00			1.00		1.00		2.00	2.00	
	Actual			1.95	0.48 ^a	3.93		1.00	0.85	0.79	1.00			1.05		0.81		2.17	1.92	
13 of 68	Expected		1.00	3.00	1.00	1.00	1.00	1.00			1.00					1.00	1.00	2.00	2.00	
	Actual		1.04	2.70	0.46 ^a	1.00	1.00	1.05			0.95					0.97	0.00 ^b	1.73	1.81	
22 of 68	Expected	2.00		1.00		5.00	2.00	1.00	1.00						1.00	3.00			2.00	
	Actual	2.00		0.92		4.74	2.10	1.15	1.13						0.97	2.78			1.95	
23 of 68	Expected	4.00				3.00	1.00		2.00	1.00					2.00	3.00			1.00	
	Actual	4.01				2.86	1.11		1.74	1.05					1.94	2.72			1.00	
24 of 68	Expected	3.00				3.00	2.00		1.00	3.00				1.00	2.00	2.00		1.00		
	Actual	2.96				2.79	2.08		1.00	2.79				1.06	1.71	1.80		1.04		
31 of 68	Expected	1.00		1.00			1.00			2.00	1.00			3.00	1.00	5.00	2.00			
	Actual	1.13		1.00			1.14			1.94	0.92			2.99	0.95	4.72	0.00 ^b			
32 of 68	Expected	1.00	1.00	1.00		1.00	1.00			2.00	2.00			1.00	1.00	4.00	1.00		1.00	
	Actual	1.17	1.00	1.06		0.88	0.88			0.00	2.05			1.09	0.94	3.86	0.00 ^b		0.98	
33 of 68	Expected	2.00	1.00	2.00		1.00		1.00		2.00	3.00		1.00	1.00		2.00	1.00		1.00	
	Actual	1.86	1.00	1.70		1.01		1.11		1.79	2.83		0.00	1.11		1.86	0.00 ^b		1.00	
40 of 68	Expected		1.00	1.00	1.00		1.00	1.00		4.00	5.00	2.00			1.00			1.00		
	Actual		0.91	1.00	0.53 ^a		1.22	0.92		3.99	5.04	1.94			1.12			1.19		
41 of 68	Expected	1.00		2.00	1.00		1.00			3.00	3.00	2.00	1.00		1.00	1.00		1.00	1.00	
	Actual	0.90		1.74	0.45 ^a		1.04			2.94	2.90	1.78	1.00		0.94	1.09		1.04	0.90	
42 of 68	Expected	1.00		1.00	1.00	1.00				2.00	2.00	1.00	1.00		1.00	1.00		1.00	2.00	
	Actual	0.92		0.84	0.49 ^a	0.90				1.87	1.82	1.01	1.00		0.98	1.09		1.06	1.88	
43 of 68	Expected			1.00		3.00	1.00	1.00	1.00	2.00	2.00		1.00		1.00	3.00			2.00	
	Actual			0.80		2.73	1.01	1.12	1.00	1.85	1.82		1.15		1.06	2.74			1.89	
53 of 68	Expected	1.00	1.00	2.00			2.00		3.00	1.00	3.00						1.00	1.00	1.00	
	Actual	0.93	1.12	1.97			2.00		1.87 ^c	0.99	2.85						0.00 ^b	1.14	0.67 ^c	
54 of 68	Expected	1.00	1.00	1.00			2.00		2.00	1.00	4.00	1.00	1.00		2.00		1.00	1.00		
	Actual	0.92	1.07	0.82			1.85		1.74	0.95	3.70	0.97	0.95		1.82		0.00 ^b	1.00		

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)
55 of 68	Expected	3.00	3.00			1.00	3.00		1.00		2.00	1.00	1.00		2.00	1.00			
	Actual	2.88	2.76			0.80	2.76		1.00		1.84	1.00	1.05		1.88	1.10			
66 of 68	Expected	1.00		2.00	1.00		1.00		4.00	1.00	1.00	1.00	1.00		4.00	1.00			
	Actual	0.92		1.89	0.54 ^a		1.00		2.75 ^c	1.05	0.97	0.98	1.00		3.82	0.97			
67 of 68	Expected	1.00			1.00		2.00		4.00	2.00			1.00		2.00	1.00		1.00	3.00
	Actual	0.98			0.52 ^a		1.98		2.71 ^c	2.00			1.02		1.93	1.00		1.05	2.09 ^c
68 of 68	Expected	1.00				1.00	1.00		2.00	2.00						1.00		1.00	3.00
	Actual	1.09				1.00	1.10		0.92 ^c	1.80						0.90		0.97	1.65 ^c

^aCys was partially destroyed during hydrolysis

^bTrp was completely destroyed during hydrolysis

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

Date: 07 AUG 2007

Signature: Signature on File

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