

## Peptide Array, Dengue Virus Type 2, New Guinea C (NGC), NS1 Protein

### Catalog No. NR-508

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**Product Description:** The 47-peptide array spans the NS1 protein of Dengue virus type 2, New Guinea C (GenPept: AAA42941). Peptides are 15- to 19-mers, with 10 or 11 amino acid overlaps.

**Lot: 3898689**

The following information applies to all peptides:

- Appearance White lyophilized powder
- Mass spectral analysis Electrospray "Exhibits correct MW"
- Counter Ion Ammonium Bicarbonate (Peptide #22)  
Trifluoroacetate (all other Peptides)

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

Table 1						
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
1	11/17/2004	19	DSGCVVSWKNKELKCGSGI	2010.3	99.2%	79.0%
2	11/17/2004	17	NKELKCGSGIFITDNVH	1875.1	93.2%	79.5%
3	11/16/2004	18	SGIFITDNVHTWTEQYKF	2186.4	93.6%	80.5%
4	11/17/2004	18	VHTWTEQYKFPESPSKL	2205.4	98.7%	79.5%
5	11/19/2004	18	KFQPESPSKLASAIQKAH	1967.2	97.9%	69.0%
6	11/22/2004	18	KLASAIQKAHEEGICGIR	1924.2	96.3%	76.2%
7	12/6/2004	18	AHEEGICGIRSVTRLENL	1999.2	96.8%	70.5%
8	11/22/2004	15	IRSVTRLENLMWKQI	1887.2	97.2%	73.7%
9	12/7/2004	18	RLENLMWKQITPELNHIL	2248.6	97.0%	76.9%
10	12/7/2004	18	KQITPELNHILSENEVKL	2105.4	96.6%	69.3%
11	12/7/2004	18	HILSENEVKLTIMTGDIK	2041.3	90.4%	80.0%
12	11/24/2004	18	KLTIMTGDIKGIMQAGKR	1961.4	91.9%	71.4%
13	12/6/2004	19	IKGIMQAGKRSLQPQPTL	2095.4	93.9%	81.0%
14	12/1/2004	17	RSLQPQPTLKYSWKWTW	2148.4	97.3%	81.2%
15	12/2/2004	16	TELYSWKTWKGAKML	1970.3	95.6%	72.6%
16	12/8/2004	15	WKTWKGAKMLSTESH	1790.0	86.8%	77.0%
17	12/1/2004	16	KAKMLSTESHNQTFI	1848.2	100.0%	73.1%
18	12/1/2004	16	TESHNQTFIDGPETA	1759.8	93.9%	82.0%
19	11/24/2004	18	TFLIDGPETAACPNTNRA	1949.1	98.4%	85.0%
20	12/1/2004	16	TAACPNTNRAWNSLEV	1805.0	98.6%	77.7%

Table 1 (continued)						
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
21	11/24/2004	18	TNRAWNSLEVEDYGFVGF	2104.2	97.3%	83.8%
22	12/9/2004	18	EVEDYGFVFTTNIWLKL	2131.4	69.9%	79.3%
23	12/1/2004	17	VFTTNIWLKLRKQDVF	2137.5	96.7%	78.5%
24	12/9/2004	18	LKLREKQDVFCDLMSA	2111.5	83.3%	71.9%
25	12/8/2004	18	VFCDSLMSAAIKDNRAV	1968.3	93.2%	73.0%
26	11/24/2004	18	SAAIKDNRAVHADMGYWI	2018.2	96.7%	78.1%
27	12/10/2004	18	AVHADMGYWIESALNDTW	2079.3	82.8%	82.2%
28	12/10/2004	18	WIESALNDTWKIEKASFI	2151.4	96.5%	81.2%
29	12/13/2004	17	TWKIEKASFIEVKSCHW	2092.4	81.5%	64.9%
30	11/24/2004	17	SFIEVKSCHWPKSHTLW	2085.4	94.7%	74.4%
31	12/6/2004	15	CHWPKSHTLWSNGVL	1765.0	90.4%	74.6%
32	11/24/2004	18	SHTLWSNGVLESEMIIPK	2041.3	95.7%	80.4%
33	11/24/2004	16	VLESEMIIPKNFAGPV	1744.1	95.8%	81.4%
34	11/22/2004	16	IIPKNFAGPVSQHNYR	1841.1	96.4%	79.4%
35	11/24/2004	18	AGPVSQHNYPGYHTQTA	1984.1	99.9%	76.2%
36	12/1/2004	18	YRPGYHTQTAGPWHLGKL	2082.3	99.7%	71.5%
37	12/2/2004	16	TAGPWHLGKLEMDDFD	1864.1	97.0%	80.2%
38	1/14/2005	18	LGKLEMDDFDFCEGTTVVV	2003.3	31.0%	76.9%
39	1/14/2005	17	DFCEGTTVVVTEDCGNR	1845.0	21.3%	85.2%
40	12/2/2004	15	VVVTEDCGNRGPSLR	1601.8	95.1%	71.0%
41	12/8/2004	18	DCGNRGPSLRTTTASGKL	1834.0	96.7%	74.8%
42	12/15/2004	17	LRTTTASGKLITWCCR	1939.3	91.4%	72.7%
43	12/8/2004	18	GKLITWCCRSCSLPPLR	2076.5	90.3%	76.9%
44	12/8/2004	18	CRSCLPPLRYRGEDGCW	2112.4	93.1%	78.8%
45	12/10/2004	18	LRYRGEDGCWYGMEIRPL	2214.5	84.0%	74.4%
46	12/10/2004	18	CWYGMEIRPLKEEENLV	2237.6	95.0%	75.2%
47	12/9/2004	16	PLKEEENLVNSLVTA	1784.0	90.9%	82.5%
<sup>a</sup> % full-length						
<sup>b</sup> Remainder is salt and water						

**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)
1	Expected			2.00	2.00	1.00	3.00		1.00	1.00	3.00				3.00		1.00		2.00
	Actual			1.97	0.61 <sup>a</sup>	0.99	3.00		0.98	1.01	2.95				2.15		0.00 <sup>a</sup>		1.76
2	Expected			3.00	1.00	1.00	2.00	1.00	2.00	1.00	2.00		1.00		1.00	1.00			1.00
	Actual			3.10	0.00 <sup>a</sup>	1.00	2.37	1.15	2.13	1.00	1.98		1.05		0.94	1.11			1.15
3	Expected			2.00		2.00	1.00	1.00	2.00		1.00		2.00		1.00	3.00	1.00	1.00	1.00
	Actual			2.01		1.99	1.00	0.91	1.97		1.02		1.95		0.88	2.76	0.00 <sup>a</sup>	0.97	0.90
4	Expected					4.00		1.00		1.00	2.00		1.00	2.00	2.00	2.00	1.00	1.00	1.00
	Actual					4.00		0.90		1.03	2.02		1.01	2.17	1.73	1.77	0.00 <sup>a</sup>	0.91	0.91
5	Expected	3.00				3.00		1.00	1.00	1.00	3.00		1.00	2.00	3.00				
	Actual	3.00				2.94		1.05	1.01	1.04	2.98		0.96	1.88	2.37				
6	Expected	3.00	1.00		1.00	3.00	2.00	1.00	3.00	1.00	2.00				1.00				
	Actual	3.00	0.94		0.00 <sup>a</sup>	2.92	2.05	1.02	2.55	1.02	1.98				0.81				
7	Expected	1.00	2.00	1.00	1.00	3.00	2.00	1.00	2.00	2.00					1.00	1.00			1.00
	Actual	1.00	2.03	1.08	0.00 <sup>a</sup>	3.03	2.13	1.04	1.59	2.20					0.90	0.96			1.08
8	Expected		2.00	1.00		2.00			2.00	2.00	1.00	1.00			1.00	1.00	1.00		1.00
	Actual		1.92	0.96		1.93			1.82	2.00	0.94	0.80			0.87	0.89	0.00 <sup>a</sup>		0.99
9	Expected		1.00	2.00		3.00		1.00	2.00	4.00	1.00	1.00		1.00		1.00	1.00		
	Actual		0.96	1.98		2.87		0.96	1.82	4.00	0.98	0.90		0.78		0.93	0.00 <sup>a</sup>		
10	Expected			2.00		4.00		1.00	2.00	3.00	2.00			1.00	1.00	1.00			1.00
	Actual			1.97		3.83		0.95	1.82	3.00	1.91			0.77	0.83	0.87			0.93
11	Expected			2.00		2.00	1.00	1.00	3.00	2.00	2.00	1.00			1.00	2.00			1.00
	Actual			1.98		1.92	1.04	0.91	2.63	2.00	2.00	0.79			0.86	1.77			0.92
12	Expected	1.00	1.00	1.00		1.00	3.00		3.00	1.00	3.00	2.00				2.00			
	Actual	1.10	0.98	0.99		0.97	3.06		2.92	1.03	2.93	1.82				1.83			
13	Expected	1.00	1.00			4.00	2.00		2.00	2.00	2.00	1.00		2.00	1.00	1.00			
	Actual	1.00	0.99			3.91	1.99		1.84	2.07	1.86	0.85		1.93	0.83	0.88			
14	Expected		1.00			3.00				2.00	2.00			2.00	2.00	2.00	2.00	1.00	
	Actual		1.08			2.89				2.00	1.99			1.80	1.74	1.70	0.00 <sup>a</sup>	1.01	
15	Expected	1.00				1.00	1.00			2.00	4.00	1.00			1.00	2.00	2.00	1.00	
	Actual	1.00				0.97	1.00			1.97	3.85	0.69			0.87	1.79	0.00 <sup>a</sup>	0.96	
16	Expected	1.00				1.00	1.00	1.00		1.00	3.00	1.00			2.00	2.00	2.00		
	Actual	1.06				1.01	1.00	1.05		1.03	2.92	0.92			1.81	1.76	0.00 <sup>a</sup>		
17	Expected	1.00		1.00		2.00		1.00	1.00	2.00	2.00	1.00	1.00		2.00	2.00			
	Actual	0.94		0.98		1.91		1.00	0.97	2.00	1.94	0.93	0.97		1.64	1.75			
18	Expected	1.00		2.00		3.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	3.00			
	Actual	1.00		2.01		2.94	1.04	1.03	1.00	1.04			1.00	0.82	0.91	2.74			
19	Expected	2.00	1.00	3.00	1.00	2.00	1.00		1.00	1.00			1.00	2.00		3.00			
	Actual	1.90	0.94	2.86	0.00 <sup>a</sup>	1.92	0.97		0.96	1.00			0.96	1.96		2.65			
20	Expected	2.00	1.00	3.00	1.00	2.00				1.00				1.00	1.00	2.00	1.00		1.00
	Actual	2.00	0.93	3.02	0.00 <sup>a</sup>	2.02				1.05				0.89	0.89	1.89	0.00 <sup>a</sup>		1.04

**Table 2 - Amino Acid Analysis (continued)**

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)
21	Expected	1.00	1.00	3.00		2.00	2.00			1.00			2.00		1.00	1.00	1.00	1.00	2.00
	Actual	1.00	0.93	2.92		1.95	2.07			1.02			1.95		0.84	0.89	0.00 <sup>a</sup>	1.02	1.96
22	Expected			2.00		2.00	2.00		1.00	2.00	1.00		2.00			2.00	1.00	1.00	2.00
	Actual			1.96		1.75	2.00		0.88	1.99	0.99		1.89			1.79	0.00 <sup>a</sup>	0.92	1.73
23	Expected		1.00	2.00		2.00			1.00	2.00	2.00		2.00			2.00	1.00		2.00
	Actual		0.88	1.95		1.90			0.95	2.00	1.95		1.89			1.87	0.00 <sup>a</sup>		1.94
24	Expected	1.00	1.00	2.00	1.00	2.00				3.00	3.00	1.00	1.00		2.00				1.00
	Actual	1.00	1.14	2.21	0.00 <sup>a</sup>	2.15				3.34	3.31	1.04	1.04		1.75				1.07
25	Expected	3.00	1.00	3.00	1.00				1.00	1.00	2.00	1.00	1.00		2.00				2.00
	Actual	3.00	1.01	3.07	0.00 <sup>a</sup>				0.97	1.05	1.99	0.91	0.95		1.70				1.96
26	Expected	4.00	1.00	3.00			1.00	1.00	2.00		1.00	1.00			1.00		1.00	1.00	1.00
	Actual	4.00	0.99	2.95			1.02	0.95	2.01		1.00	0.88			0.79		0.00 <sup>a</sup>	0.97	1.03
27	Expected	3.00		3.00		1.00	1.00	1.00	1.00	1.00		1.00			1.00	1.00	2.00	1.00	1.00
	Actual	3.00		2.86		0.97	0.97	0.97	0.96	1.04		0.98			0.80	0.91	0.00 <sup>a</sup>	0.99	0.90
28	Expected	2.00		2.00		2.00			3.00	1.00	2.00		1.00		2.00	1.00	2.00		
	Actual	2.00		1.80		1.94			2.90	1.01	1.98		0.98		1.46	0.81	0.00 <sup>a</sup>		
29	Expected	1.00			1.00	2.00		1.00	2.00		3.00		1.00		2.00	1.00	2.00		1.00
	Actual	1.00			0.00 <sup>a</sup>	2.05		1.27	1.98		3.11		1.08		1.39	0.78	0.00 <sup>a</sup>		1.14
30	Expected				1.00	1.00		2.00	1.00	1.00	2.00		1.00	1.00	3.00	1.00	2.00		1.00
	Actual				0.00 <sup>a</sup>	1.00		2.23	0.99	1.16	2.10		0.99	1.18	2.07	0.98	0.00 <sup>a</sup>		1.02
31	Expected			1.00	1.00		1.00	2.00		2.00	1.00			1.00	2.00	1.00	2.00		1.00
	Actual			0.99	0.00 <sup>a</sup>		1.00	1.95		1.93	0.95			0.79	1.75	0.87	0.00 <sup>a</sup>		0.90
32	Expected			1.00		2.00	1.00	1.00	2.00	2.00	1.00	1.00		1.00	3.00	1.00	1.00		1.00
	Actual			1.01		2.04	1.00	0.98	1.51 <sup>b</sup>	2.04	1.03	0.88		1.01	2.50	0.89	0.00 <sup>a</sup>		1.00
33	Expected	1.00		1.00		2.00	1.00		2.00	1.00	1.00	1.00	1.00	2.00	1.00				2.00
	Actual	1.09		1.06		1.96	1.09		1.69 <sup>b</sup>	1.00	1.04	0.95	1.06	2.25	0.75				2.08
34	Expected	1.00	1.00	2.00		1.00	1.00	1.00	2.00		1.00		1.00	2.00	1.00			1.00	1.00
	Actual	1.00	1.00	2.01		1.02	1.01	1.08	1.08 <sup>b</sup>		1.00		1.00	2.03	0.84			0.93	1.03
35	Expected	2.00	1.00	1.00		2.00	2.00	2.00						2.00	1.00	2.00		2.00	1.00
	Actual	2.00	1.02	0.99		2.04	2.03	2.06						2.05	0.77	1.86		1.96	0.98
36	Expected	1.00	1.00			1.00	3.00	2.00		2.00	1.00			2.00		2.00	1.00	2.00	
	Actual	1.00	0.86			1.01	3.02	1.98		2.05	1.01			2.02		1.90	0.00 <sup>a</sup>	1.91	
37	Expected	1.00		2.00		1.00	2.00	1.00		2.00	1.00	1.00	2.00	1.00		1.00	1.00		
	Actual	1.00		2.02		1.01	2.07	1.02		2.04	1.01	0.81	2.00	1.02		1.06	0.00 <sup>a</sup>		
38	Expected			2.00	1.00	2.00	2.00			2.00	1.00	1.00	2.00			2.00			3.00
	Actual			1.92	0.00 <sup>a</sup>	1.90	2.00			1.96	0.94	0.86	1.88			1.93			2.90
39	Expected		1.00	3.00	2.00	2.00	2.00						1.00			3.00			3.00
	Actual		1.28	3.21	0.00 <sup>a</sup>	1.96	2.00						0.70			2.93			3.40
40	Expected		2.00	2.00	1.00	1.00	2.00			1.00				1.00	1.00	1.00			3.00
	Actual		1.98	1.95	0.00 <sup>a</sup>	0.99	2.00			1.02				0.86	0.88	0.90			2.29 <sup>b</sup>

**Table 2 - Amino Acid Analysis (continued)**

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)
41	Expected	1.00	2.00	2.00	1.00		3.00			2.00	1.00			1.00	2.00	3.00			
	Actual	1.00	1.98	1.94	0.00 <sup>a</sup>		3.00			2.03	0.99			1.00	1.73	2.68			
42	Expected	1.00	2.00		2.00	1.00	1.00		1.00	2.00	1.00				1.00	4.00	1.00		
	Actual	1.00	2.27		0.00 <sup>a</sup>	0.96	1.09		1.03	2.11	1.05				0.88	3.63	0.00 <sup>a</sup>		
43	Expected		2.00		3.00	1.00	1.00		1.00	3.00	1.00			2.00	1.00	2.00	1.00		
	Actual		2.03		0.00 <sup>a</sup>	0.98	1.00		1.01	3.11	1.00			2.25	0.48	1.88	0.00 <sup>a</sup>		
44	Expected		3.00	1.00	3.00	1.00	2.00			2.00				2.00	1.00	1.00	1.00	1.00	
	Actual		3.06	0.96	0.00 <sup>a</sup>	0.96	2.00			1.98				2.07	0.46	0.91	0.00 <sup>a</sup>	0.98	
45	Expected		3.00	1.00	1.00	2.00	3.00		1.00	2.00		1.00		1.00			1.00	2.00	
	Actual		2.77	1.01	0.00 <sup>a</sup>	1.94	3.00		0.96	1.96		0.94		0.93			0.00 <sup>a</sup>	1.90	
46	Expected		1.00	1.00	1.00	4.00	1.00		1.00	2.00	2.00	1.00		1.00			1.00	1.00	1.00
	Actual		0.87	0.99	0.00 <sup>a</sup>	3.86	1.00		0.98	2.03	1.97	0.99		0.94			0.00 <sup>a</sup>	1.01	0.99
47	Expected	1.00		2.00		3.00				3.00	2.00			1.00	1.00	1.00			2.00
	Actual	1.00		2.11		2.88				3.01	1.92			0.91	0.90	0.97			2.06

<sup>a</sup>Cys and/or Trp was partially or completely destroyed during hydrolysis.

<sup>b</sup>Ile-Ile and/or Val-Val-Val were partially or completely destroyed during hydrolysis.

**Date:** 22 MAY 2007

**Signature:** Signature on File

**Title:** Technical Manager, BEI Authentication or designee

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