

Peptide Array, Dengue Virus Type 2 (DEN-2), New Guinea C (NGC), NS4a Protein

Catalog No. NR-2749

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Product Description: The 48-peptide array spans the NS4a protein of Dengue virus type 2, New Guinea C (GenPept: AAA42941). Peptides are 14- to 17-mers, with 11 or 12 amino acid overlaps.

Lot: PC0329

The following information applies to all peptides:

- Appearance White lyophilized powder
- Mass spectral analysis Correct MW by ESI/MS
- Counter Ion Trifluoroacetate

Peptide-specific information is shown in the two tables below. **Note:** Peptide 18 of 48 gave unexpected results for the amino acid analysis (see Table 2).

Table 1							
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC ^a	Peptide Content ^b
1 of 48	11/30/2006	17	1 SLTLNLITEMGRLPTFM 17	1937.40	0.58	91.7%	84.5%
2 of 48	12/13/2006	17	7 ITEMGRLPTFMTQKARD 23	1995.66	-0.64	92.7%	76.4%
3 of 48	12/04/2006	17	13 LPTFMTQKARDALDNLA 29	1905.14	-0.23	90.1%	83.7%
4 of 48	11/30/2006	17	18 TQKARDALDNLAVLHTA 34	1836.86	-0.25	90.3%	67.7%
5 of 48	12/05/2006	17	24 ALDNLAVLHTAEAGGRA 40	1678.60	0.29	96.7%	78.0%
6 of 48	12/05/2006	16	30 VLHTAEAGGRAYNHAL 45	1679.53	-0.11	92.7%	62.0%
7 of 48	11/21/2006	17	34 AEAGGRAYNHALSELPE 50	1784.74	-0.67	96.3%	83.5%
8 of 48	12/08/2006	17	40 AYNHALSELPETLETL 56	1914.40	0.02	92.1%	72.0%
9 of 48	02/19/2007	17	46 SELPETLETLTLLTLLA 62	1869.13	1.01	82.0%	70.4%
10 of 48	02/21/2007	17	52 LETLLLTLLATVTGGI 68	1739.93	1.76	83.9%	83.0%
11 of 48	03/23/2007	16	58 LTLLATVTGGIFLFLM 73	1709.93	2.13	Unknown ^c	83.4%
12 of 48	01/03/2007	17	63 TVTGGIFLFLMSGRGIG 79	1725.53	1.15	81.5%	66.3%
13 of 48	02/07/2007	17	69 FLFLMSGRGIGKMTLGM 85	1859.80	0.92	83.8%	74.4%
14 of 48	01/03/2007	17	75 GRGIGKMTLGMCCIITA 91	1724.47	0.97	87.3%	79.5%
15 of 48	03/23/2007	17	81 MTLGMCCIITASILLWY 97	1931.73	1.81	Unknown ^c	77.5%
16 of 48	03/28/2007	17	87 CIITASILLWYAQIQPH 103	1970.00	0.95	Unknown ^c	84.9%
17 of 48	12/29/2006	17	93 ILLWYAQIQPHWIAASI 109	2023.26	0.9	86.9%	82.6%
18 of 48	02/21/2007	17	98 AQIQPHWIAASIILEFF 114	1983.33	0.93	86.2%	57.7%
19 of 48	03/23/2007	17	104 WIAASIILEFFLIVLLI 120	1973.20	2.7	88.3%	53.6%
20 of 48	02/20/2007	17	110 ILEFFLIVLLIPEPEKQ 126	2041.54	1.02	Unknown ^c	65.9%
21 of 48	11/21/2006	17	116 IVLLIPEPEKQRTPDQN 132	1990.06	-0.83	99.0%	61.0%
22 of 48	11/21/2006	17	121 PEPEKQRTPDQNQLTYV 137	2042.86	-1.91	96.1%	69.5%
23 of 48	03/28/2007	17	127 RTPQDNQLTYVVIALT 143	1945.53	0.19	Unknown ^c	70.6%
24 of 48	03/14/2007	17	132 NQLTYVVIALTVVAAAT 148	1788.00	1.67	Unknown ^c	62.4%
25 of 48	02/05/2007	17	138 VIAITVVAAATMANEMG 154	1704.40	1.62	92.9%	70.6%
26 of 48	12/14/2006	17	144 VVAATMANEMGFLEKTK 160	1840.13	0.24	92.4%	71.5%

Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC ^a	Peptide Content ^b
27 of 48	12/18/2006	17	150 ANEMGFLEKTKKDLGLG 166	1851.00	-0.57	80.1%	69.7%
28 of 48	01/24/2007	17	156 LEKTKKDLGLGSITTQQ 172	1859.80	-0.79	95.5%	84.0%
29 of 48	01/03/2007	17	162 DLGLGSITTQQPESNIL 178	1785.33	-0.15	87.1%	80.8%
30 of 48	11/15/2006	16	168 ITTQQPESNILDIDLR 183	1855.94	-0.51	88.8%	53.6%
31 of 48	12/19/2006	17	173 PESNILDIDLRPASAWT 189	1898.60	-0.28	96.4%	53.0%
32 of 48	12/21/2006	17	179 DIDLRPASAWTLYAVAT 195	1862.74	0.35	92.1%	85.1%
33 of 48	03/01/2007	17	185 ASAWTLYAVATTFVTPM 201	1829.33	0.98	Unknown ^c	69.1%
34 of 48	12/27/2006	17	191 YAVATTFVTPMLRHSIE 207	1935.60	0.47	96.6%	74.4%
35 of 48	12/27/2006	17	197 FVTPMLRHSIENSSVNV 213	1929.80	0.16	94.7%	65.0%
36 of 48	01/10/2007	17	203 RHSIENSSVNVSLTAIA 219	1797.60	0.16	86.8%	75.3%
37 of 48	03/21/2007	17	209 SSVNVSLTAIANQATVL 225	1687.13	0.93	Unknown ^c	77.9%
38 of 48	12/29/2006	17	215 LTAIANQATVLMGLGKG 231	1657.40	0.82	81.5%	90.0%
39 of 48	12/29/2006	17	220 NQATVLMGLGKGWPLSK 236	1799.40	-0.04	92.4%	82.6%
40 of 48	01/03/2007	16	226 MGLGKGWPLSKMDIGV 241	1688.34	0.24	97.7%	83.6%
41 of 48	01/03/2007	17	231 GWPLSKMDIGVPLLAIG 247	1766.27	0.87	91.2%	88.6%
42 of 48	02/20/2007	17	237 MDIGVPLLAIGCYSQVN 253	1792.20	0.95	90.3%	53.7%
43 of 48	03/28/2007	17	243 LLAIGCYSQVNPITLTA 259	1776.27	1.07	Unknown ^c	72.0%
44 of 48	01/12/2007	17	249 YSQVNPITLTAALFLLV 265	1862.40	1.32	84.4%	79.8%
45 of 48	02/21/2007	17	255 ITLTAALFLLVAHYAII 271	1843.40	2.18	81.4%	67.1%
46 of 48	02/01/2007	17	261 LFLLVAHYAIIIGPLQA 277	1796.53	1.54	95.9%	73.8%
47 of 48	01/12/2007	17	267 HYAIIIGPLQAKATREA 283	1795.53	-0.18	99.1%	54.4%
48 of 48	11/15/2006	14	273 PGLQAKATREAQKR 286	1553.80	-1.49	94.5%	49.4%

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

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 of 48	Expected		1.00	1.00		1.00	1.00		1.00	4.00		2.00	1.00	1.00	1.00	3.00			
	Actual		1.02	0.98		1.00	1.04		1.01	3.96		2.05	1.04	1.04	1.04	2.89			
2 of 48	Expected	1.00	2.00	1.00		2.00	1.00		1.00	1.00	1.00	2.00	1.00	1.00		3.00			
	Actual	0.97	1.96	0.99		2.06	1.06		1.00	1.02	1.03	2.03	1.00	0.97		2.93			
3 of 48	Expected	3.00	1.00	3.00		1.00				3.00	1.00	1.00	1.00	1.00		2.00			
	Actual	2.90	1.01	3.01		0.99				2.92	1.00	1.06	1.07	1.03		1.90			
4 of 48	Expected	4.00	1.00	3.00		1.00		1.00		3.00	1.00					2.00			1.00
	Actual	3.99	0.99	3.03		1.05		1.07		3.02	0.98					1.97			0.96
5 of 48	Expected	5.00	1.00	2.00		1.00	2.00	1.00		3.00						1.00			1.00
	Actual	5.04	0.99	2.01		1.00	2.07	1.00		2.90						1.03			1.02
6 of 48	Expected	4.00	1.00	1.00		1.00	2.00	2.00		2.00						1.00		1.00	1.00
	Actual	3.93	0.96	1.01		0.99	2.02	2.08		2.07						0.91		1.08	1.02
7 of 48	Expected	4.00	1.00	1.00		3.00	2.00	1.00		2.00				1.00	1.00			1.00	
	Actual	3.80	1.04	0.94		3.00	2.10	1.01		1.96				1.00	0.86			1.03	
8 of 48	Expected	2.00		1.00		3.00		1.00		5.00				1.00	1.00	2.00		1.00	
	Actual	2.08		0.98		3.04		1.07		4.72				1.00	1.00	2.06		1.07	
9 of 48	Expected	1.00				3.00				8.00				1.00	1.00	3.00			
	Actual	1.10				3.01				7.58				1.01	1.09	2.99			
10 of 48	Expected	1.00				1.00	2.00		1.00	7.00						4.00			1.00
	Actual	1.08				1.00	2.13		0.89	6.85						3.90			1.06

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)
11 of 48	Expected	1.00					2.00		1.00	5.00		1.00	2.00			3.00			1.00
	Actual	1.03					2.04		0.89	5.08		1.04	2.01			2.91			1.03
12 of 48	Expected		1.00				5.00		2.00	2.00		1.00	2.00		1.00	2.00			1.00
	Actual		1.05				5.17		1.96	1.96		1.02	1.93		1.01	2.07			1.06
13 of 48	Expected		1.00				4.00		1.00	3.00	1.00	3.00	2.00		1.00	1.00			
	Actual		1.10				4.09		1.00	2.91	1.01	3.09	1.86		1.02	1.06			
14 of 48	Expected	1.00	1.00		2.00		4.00		3.00	1.00	1.00	2.00		0.00		2.00			
	Actual	1.07	1.06		0.00 ^a		3.91		2.87 ^b	0.99	0.98	2.06		0.48 ^a		1.95			
15 of 48	Expected	1.00			2.00		1.00		3.00	3.00		2.00		0.00	1.00	2.00	1.00	1.00	
	Actual	1.07			0.00 ^a		0.99		2.89 ^b	3.16		1.97		0.48 ^a	0.99	1.88	0.00 ^c	1.00	
16 of 48	Expected	2.00			1.00	2.00		1.00	4.00	2.00				1.00	1.00	1.00	1.00	1.00	
	Actual	2.00			0.00 ^a	2.03		1.01	3.69 ^b	2.05				1.10 ^a	1.02	0.82	0.00 ^c	0.91	
17 of 48	Expected	3.00				2.00		1.00	4.00	2.00				1.00	1.00		2.00	1.00	
	Actual	3.11				2.07		1.04	3.92	2.00				0.96	1.00		0.00 ^c	1.04	
18 of 48	Expected	3.00				3.00	0.00	1.00	4.00	1.00			2.00	1.00	1.00	0.00	1.00		0.00
	Actual	2.88				2.34	0.70 ^d	0.73	2.89 ^b	1.76			1.65	1.11	1.02	0.61 ^d	0.00 ^c		0.48 ^d
19 of 48	Expected	2.00				1.00			5.00	4.00			2.00		1.00		1.00		1.00
	Actual	2.04				0.99			4.76 ^b	3.99			1.85		1.06		0.00 ^c		1.06
20 of 48	Expected					4.00			3.00	4.00	1.00			2.00					1.00
	Actual					4.06			2.91 ^b	3.94	1.03		1.95	2.11					0.97 ^b
21 of 48	Expected		1.00	2.00		4.00			2.00	2.00	1.00			3.00		1.00			1.00
	Actual		1.09	1.96		4.21			1.89 ^b	1.86	1.07			3.09		1.02			0.93 ^b
22 of 48	Expected		1.00	2.00		5.00				1.00	1.00			3.00		2.00		1.00	1.00
	Actual		1.02	2.03		4.89				1.03	0.98			2.88		2.03		1.03	1.01
23 of 48	Expected	1.00	1.00	2.00		2.00			2.00	2.00				1.00		3.00		1.00	2.00
	Actual	1.03	1.02	1.83		1.95			1.86 ^b	2.06				1.09		3.06		1.00	2.01
24 of 48	Expected	3.00		1.00		1.00			2.00	2.00						3.00		1.00	4.00
	Actual	3.12		1.02		0.99			1.87 ^b	2.02						3.05		0.96	4.07
25 of 48	Expected	4.00		1.00		1.00	1.00		2.00	1.00		2.00				2.00			3.00
	Actual	4.07		1.05		1.04	1.05		1.82 ^b	1.06		2.05				2.01			2.67 ^b
26 of 48	Expected	3.00		1.00		2.00	1.00			1.00	2.00	2.00	1.00			2.00			2.00
	Actual	3.18		1.04		1.94	1.04			1.05	1.97	1.87	1.06			2.05			1.78 ^b
27 of 48	Expected	1.00		2.00		2.00	3.00			3.00	3.00	1.00	1.00			1.00			
	Actual	0.98		1.96		1.91	3.06			2.82	2.98	1.07	1.04			1.08			
28 of 48	Expected			1.00		3.00	2.00		1.00	3.00	3.00				1.00	3.00			
	Actual			0.99		3.12	2.12		0.97	3.07	3.09				0.90	2.94			
29 of 48	Expected			2.00		3.00	2.00		2.00	3.00				1.00	2.00	2.00			
	Actual			1.94		3.17	2.14		1.97	3.17				1.03	1.81	1.86			
30 of 48	Expected		1.00	3.00		3.00			3.00	2.00				1.00	1.00	2.00			
	Actual		1.02	3.07		3.01			2.97	2.09				1.09	0.92	1.81			
31 of 48	Expected	2.00	1.00	3.00		1.00			2.00	2.00				2.00	2.00	1.00	1.00		
	Actual	2.12	1.07	3.10		0.94			2.01	2.09				1.89	1.89	0.96	0.00 ^c		
32 of 48	Expected	4.00	1.00	2.00					1.00	2.00				1.00	1.00	2.00	1.00	1.00	1.00
	Actual	3.96	0.94	2.05					0.93	2.00				1.03	0.94	2.00	0.00 ^c	0.99	1.15
33 of 48	Expected	4.00								1.00		1.00	1.00	1.00	1.00	4.00	1.00	1.00	2.00
	Actual	3.97								1.06		0.98	1.10	1.12	1.00	4.08	0.00 ^c	0.94	1.88
34 of 48	Expected	2.00	1.00			1.00		1.00	1.00	1.00		1.00	1.00	1.00	1.00	3.00		1.00	2.00
	Actual	2.05	1.02			1.06		1.02	1.01	1.03		0.96	0.98	1.02	0.87	2.90		1.00	2.08
35 of 48	Expected		1.00	2.00		1.00		1.00	1.00	1.00		1.00	1.00	1.00	3.00	1.00			3.00
	Actual		1.09	2.07		0.94		1.06	1.05	1.06		0.87	1.04	0.95	2.73	0.96			3.06

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)	
36 of 48	Expected	2.00	1.00	2.00		1.00		1.00	2.00	1.00					4.00	1.00			2.00	
	Actual	2.05	0.98	2.01		0.97		1.03	2.07	1.04					3.67	0.98			2.03	
37 of 48	Expected	3.00		2.00		1.00			1.00	2.00					3.00	2.00			3.00	
	Actual	3.12		2.03		1.04			1.02	1.96					2.85	1.99			2.89	
38 of 48	Expected	3.00		1.00		1.00	3.00		1.00	3.00	1.00	1.00				2.00			1.00	
	Actual	3.03		1.00		1.06	3.18		0.87	3.10	1.05	0.83				2.00			0.91	
39 of 48	Expected	1.00		1.00		1.00	3.00			3.00	2.00	1.00		1.00	1.00	1.00	1.00		1.00	
	Actual	1.09		0.96		1.01	3.15			3.10	2.03	0.86		1.05	0.81	0.96	0.00 ^c		0.97	
40 of 48	Expected			1.00			4.00		1.00	2.00	2.00	2.00		1.00	1.00		1.00		1.00	
	Actual			1.03			4.17		0.96	2.08	2.03	1.88		1.02	0.96		0.00 ^c		0.99	
41 of 48	Expected	1.00		1.00			3.00		2.00	3.00	1.00	1.00		2.00	1.00		1.00		1.00	
	Actual	1.01		1.02			3.06		1.92	3.11	1.03	0.95		1.97	0.95		0.00 ^c		1.04	
42 of 48	Expected	1.00		2.00	1.00	1.00	2.00		2.00	2.00		1.00		1.00	1.00				1.00	2.00
	Actual	1.05		1.96	0.00 ^a	0.97	2.00		2.08	2.02		1.00		1.22	0.98				0.96	2.04
43 of 48	Expected	2.00		1.00	1.00	1.00	1.00		2.00	3.00				1.00	1.00	2.00			1.00	1.00
	Actual	2.02		1.07	0.00 ^a	0.96	0.93		2.04	2.98				1.38	1.07	2.01			1.01	0.93
44 of 48	Expected	2.00		1.00		1.00			1.00	4.00			1.00	1.00	1.00	2.00			1.00	2.00
	Actual	1.96		0.95		0.95			0.87	4.06			1.10	1.08	0.99	1.99			0.99	2.17
45 of 48	Expected	4.00						1.00	3.00	4.00			1.00				2.00		1.00	1.00
	Actual	4.08						1.04	2.56 ^b	3.97			1.02			2.02			0.98	1.13
46 of 48	Expected	3.00				1.00	2.00	1.00	2.00	4.00			1.00	1.00					1.00	1.00
	Actual	2.99				1.02	1.99	0.98	1.86 ^b	4.02			0.98	1.04					0.99	1.06
47 of 48	Expected	4.00	1.00			2.00	2.00	1.00	2.00	1.00	1.00			1.00		1.00			1.00	
	Actual	4.06	0.99			2.08	2.05	1.00	1.87 ^b	1.01	1.03			0.98		0.98			0.99	
48 of 48	Expected	3.00	2.00			3.00	1.00			1.00	2.00			1.00		1.00				
	Actual	3.01	2.00			3.02	1.02			0.99	2.00			1.01		0.96				

^aCys was partially destroyed during hydrolysis and Cys degradation products co-elute with Pro

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

^cTrp was completely destroyed during hydrolysis

^dResidual Gly, Thr, and Val were unexpected

Date: 30 APR 2007

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