

## Peptide Array, Dengue Virus Type 4, Dominica/814669/1981, E Protein

### Catalog No. NR-512

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

**Product Description:** The 69-peptide array spans the E protein of Dengue virus type 4, Dominica/814669/1981 (GenPept: P09866) Peptides are 12- to 20-mers, with 10 or 11 amino acid overlaps.

**Lot: 3898693**

The following information applies to all peptides:

- Appearance White lyophilized powder
- Mass spectral analysis Electrospray "Exhibits correct MW"
- Counter Ion Ammonium acetate (Peptides 2, 51, 59)  
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	1/4/2005	15	MRCVGVGNRDFVEGV	1637.9	91.0%	81.2%
2	1/4/2005	18	VGNRDFVEGVSGGAWVDL	1877.0	92.0%	89.5%
3	1/11/2005	18	GVSGGAWVDLVLEHGCV	1755.0	94.6%	80.4%
4	1/11/2005	17	DLVLEHGCVTTMAQGK	1759.0	94.6%	83.1%
5	1/11/2005	17	GCVTTMAQKPTLDFEL	1811.1	95.2%	82.5%
6	1/11/2005	17	AQGKPTLDFELTKTTAK	1849.1	90.2%	68.2%
7	1/4/2005	18	DFELTKTTAKEVALLRTY	2099.4	91.2%	75.9%
8	1/4/2005	16	AKEVALLRTYCIASI	1780.1	93.2%	81.3%
9	1/11/2005	18	LRTYCIASISNITTATR	2012.3	78.5%	78.3%
10	1/11/2005	18	SISNITTATRCPTQGEPY	1939.2	97.0%	86.5%
11	1/11/2005	19	TRCPTQGEPLYLKEEQDQQY	2313.5	98.3%	85.2%
12	1/11/2005	17	YLKEEQDQQYICRRDVV	2313.5	96.5%	74.0%
13	1/14/2005	15	DQQYICRRDVVDRGW	1909.1	94.5%	80.1%
14	1/11/2005	17	CRRDVVDRGWGNGCGLF	1910.2	93.2%	76.6%
15	1/14/2005	16	RGWNGCGLFGKGGVV	1563.8	97.5%	75.1%
16	1/14/2005	15	CGLFGKGGVVTCAKF	1486.8	90.5%	76.3%
17	1/12/2005	16	KGGVVTCAKFSCSGKI	1584.9	95.8%	65.9%
18	1/14/2005	17	CAKFSCSGKITGNLVQI	1769.1	94.6%	77.8%
19	1/19/2005	18	GKITGNLVQIENLEYTVV	1990.3	37.4%	60.8%
20	1/19/2005	15	VQIENLEYTVVVTVH	1743.0	24.6%	65.4%
21	1/18/2005	17	LEYTVVVTVHNGDTHAV	1854.1	91.0%	81.4%
22	1/13/2005	17	TVHNGDTHAVGNDSNH	1775.8	98.9%	72.2%
23	1/14/2005	16	HAVGNDSNHGVTAMI	1623.8	96.2%	79.3%
24	1/11/2005	17	TSNHGVTAMITPRSPSV	1755.0	99.2%	86.7%
25	1/14/2005	17	AMITPRSPSVEVKLPDY	1903.2	97.1%	70.2%

Table 1 (continued)						
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
26	1/11/2005	15	PSVEVKLPDYGELTL	1659.9	98.6%	86.4%
27	1/11/2005	18	KLPDYGELTLDCEPRSGI	2006.3	94.7%	77.0%
28	1/11/2005	18	TLDCEPRSGIDFNEMILM	2084.4	90.6%	72.4%
29	1/14/2005	18	GIDFNEMILMKMKKKTWL	2226.8	98.3%	64.6%
30	1/18/2005	17	LMKMKKKTWLVHKQWFL	2245.9	97.4%	62.8%
31	1/19/2005	18	TWLVHKQWFLDLPLPWTA	2251.7	96.6%	75.4%
32	1/13/2005	18	FLDLPLPWTAGADTSEVH	1969.2	99.0%	85.5%
33	1/18/2005	18	TAGADTSEVHWNYKERMV	2094.3	98.4%	74.7%
34	1/13/2005	18	VHWNYKERMVTFKVPKAK	2270.7	98.8%	68.5%
35	1/18/2005	17	MVTFKVPKAKRQDVTVL	1969.4	98.0%	74.4%
36	1/11/2005	18	HAKRQDVTVLGSQEGAMH	1964.2	98.0%	84.4%
37	1/11/2005	16	VLGSQEGAMHSALAGA	1498.7	97.3%	80.1%
38	1/12/2005	20	GAMHSALAGATEVDSGDGNH	1897.0	99.0%	72.9%
39	1/11/2005	17	TEVDSGDGNHMFAGHLK	1815.0	98.2%	66.7%
40	1/11/2005	18	GNHMFAGHLKCKVRMEKL	2099.6	97.7%	67.9%
41	1/11/2005	17	LKCKVRMEKLRIKGMYSY	2083.7	97.4%	71.3%
42	1/11/2005	17	EKLRIKGMYSYTMCSGKF	1979.4	98.0%	72.9%
43	1/13/2005	17	MSYTMCSGKFSIDKEMA	1929.3	98.9%	80.4%
44	1/11/2005	18	GKFSIDKEMAETQHGTTV	1979.2	99.2%	71.2%
45	1/12/2005	18	MAETQHGTTVVKVYEGA	1949.2	92.7%	74.7%
46	1/11/2005	18	TVVKVYEGAGAPCKVPI	1859.3	99.0%	79.3%
47	1/12/2005	17	GAGAPCKVPIEIRDVNK	1767.1	99.0%	77.7%
48	1/12/2005	18	VPIEIRDVNKEKVVGRIL	2077.5	98.0%	79.6%
49	1/13/2005	16	NKEKVVGRISSTPLA	1712.0	>99%	68.8%
50	1/13/2005	16	GRIISSTPLAENTNSV	1658.8	>99%	83.6%
51	1/18/2005	15	TPLAENTNSVTNIEL	1615.8	96.0%	93.6%
52	1/19/2005	18	NTNSVTNIELEPPFGDSY	1997.1	98.8%	92.6%
53	1/13/2005	15	ELEPPFGDSYIVIGV	1634.8	93.1%	85.0%
54	1/14/2005	18	FGDSYIVIGVGNLSALTLH	1863.1	28.3%	75.9%
55	1/19/2005	18	GVGNSALTLHWFRKGSSI	1930.2	97.5%	78.2%
56	1/19/2005	18	LHWFRKGSSIGKMFESTY	2174.5	95.8%	70.5%
57	1/19/2005	18	SIGKMFESTYRGAKRMAI	2046.4	97.8%	72.8%
58	1/13/2005	18	TYRGAKRMAILGETAWDF	2086.4	97.2%	72.7%
59	1/18/2005	17	AILGETAWDFGSVGGFL	1739.9	98.4%	83.4%
60	1/13/2005	18	WDFGSVGGFLFTSLGKAVH	1878.1	98.8%	86.9%
61	1/13/2005	17	LFTSLGKAVHQVFGSVY	1853.2	98.6%	78.5%
62	1/14/2005	17	AVHQVFGSVYTTMFGGV	1800.1	98.3%	75.5%
63	1/13/2005	18	SVYTTMFGGVSWMIRILI	2074.5	29.1%	78.8%
64	1/13/2005	17	GVSWMIRILIGFLVLWI	2016.6	43.0%	59.1%
65	1/13/2005	15	ILIGFLVLWIGTNSR	1702.1	42.8%	63.3%
66	1/13/2005	16	LVLWIGTNSRNTSMAM	1794.1	79.4%	65.6%
67	1/12/2005	18	TNSRNTSMAMTCIAVGGI	1827.1	84.1%	74.6%
68	1/13/2005	18	AMTCIAVGGITLFLGFTV	1814.2	53.7%	80.2%
69	1/18/2005	12	GITLFLGFTVQA	1266.5	26.5%	88.5%

<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	1.00	3.00					1.00	1.00						4.00
	Actual		1.91	1.96	0.00 <sup>a</sup>	0.92	2.92					0.91	0.93						3.82
2	Expected	1.00	1.00	3.00		1.00	4.00			1.00			1.00		1.00		1.00		4.00
	Actual	1.00	0.95	2.97		0.98	3.96			1.01			0.94		0.82		0.00 <sup>a</sup>		3.84
3	Expected	1.00		1.00	1.00	1.00	5.00	1.00		2.00					1.00		1.00		4.00
	Actual	1.00		1.11	0.00 <sup>a</sup>	1.08	5.49	1.11		2.23					0.81		0.00 <sup>a</sup>		4.39
4	Expected	1.00		1.00	1.00	2.00	3.00	1.00		2.00	1.00	1.00				2.00			2.00
	Actual	1.00		1.04	0.00 <sup>a</sup>	1.98	3.10	1.06		2.11	1.01	0.98				1.83			2.05
5	Expected	1.00		1.00	1.00	2.00	2.00			2.00	1.00	1.00	1.00	1.00		3.00			1.00
	Actual	1.00		1.02	0.00 <sup>a</sup>	1.99	1.97			2.06	0.93	0.98	1.02	0.92		2.68			0.99
6	Expected	2.00		1.00		2.00	1.00			2.00	3.00		1.00	1.00		4.00			
	Actual	2.00		1.25		1.93	0.99			2.03	2.99		1.02	0.96		3.55			
7	Expected	2.00	1.00	1.00		2.00				3.00	2.00		1.00			4.00		1.00	1.00
	Actual	2.00	1.01	1.03		1.96				3.11	2.03		1.02			3.62		1.02	1.02
8	Expected	3.00	1.00		1.00	2.00			2.00	2.00	1.00				1.00	1.00		1.00	1.00
	Actual	3.00	1.02		0.00 <sup>a</sup>	2.00			1.93	2.11	1.03				0.85	0.90		0.95	1.03
9	Expected	2.00	2.00	1.00	1.00	1.00			3.00	1.00					2.00	4.00			1.00
	Actual	2.00	1.99	1.04	0.00 <sup>a</sup>	1.05			2.96	1.07					1.64	3.40			0.97
10	Expected	1.00	1.00	1.00	1.00	2.00	1.00		2.00					2.00	2.00	4.00		1.00	
	Actual	1.00	0.98	1.00	0.00 <sup>a</sup>	2.04	1.00		1.92					2.22	1.50	3.42			0.97
11	Expected		1.00	1.00	1.00	7.00	1.00			1.00	1.00			2.00		2.00		2.00	
	Actual		0.97	1.02	0.00 <sup>a</sup>	6.64	1.00			1.02	1.00			2.18		1.81			1.97
12	Expected		2.00	2.00	1.00	5.00			1.00	1.00	1.00							2.00	2.00
	Actual		2.00	2.02	0.00 <sup>a</sup>	4.75			0.85	1.02	1.00							1.97	1.73 <sup>b</sup>
13	Expected		3.00	3.00	1.00	2.00	1.00		1.00								1.00	1.00	2.00
	Actual		3.12	2.90	0.00 <sup>a</sup>	1.79	1.00		0.70								0.00 <sup>a</sup>	0.91	1.52 <sup>b</sup>
14	Expected		3.00	3.00	2.00		4.00			1.00			1.00				1.00		2.00
	Actual		3.15	3.02	0.00 <sup>a</sup>		4.00			1.02			1.04				0.00 <sup>a</sup>		1.42 <sup>b</sup>
15	Expected		1.00	1.00	1.00		7.00			1.00	1.00		1.00				1.00		2.00
	Actual		1.20	0.99	0.00 <sup>a</sup>		6.89			1.00	0.98		1.02				0.00 <sup>a</sup>		1.60 <sup>b</sup>
16	Expected	1.00			2.00		4.00			1.00	2.00		2.00			1.00			2.00
	Actual	0.97			0.00 <sup>a</sup>		4.08			1.02	2.00		2.04			0.60			1.58 <sup>b</sup>
17	Expected	1.00			2.00		3.00		1.00		3.00		1.00		2.00	1.00			2.00
	Actual	1.00			0.00 <sup>a</sup>		2.98		0.96		2.87		1.01		1.50	0.48 <sup>b</sup>			1.38 <sup>b</sup>
18	Expected	1.00		1.00	2.00	1.00	2.00		2.00	1.00	2.00		1.00		2.00	1.00			1.00
	Actual	1.00		1.08	0.00 <sup>a</sup>	1.08	2.12		2.07	1.08	2.05		1.02		1.30	0.95			1.07
19	Expected			2.00		3.00	2.00		2.00	2.00	1.00					2.00		1.00	3.00
	Actual			1.61		2.91	1.95		1.88	2.00	0.98					1.76		1.12	2.71
20	Expected			1.00		3.00		1.00	1.00	1.00						2.00		1.00	5.00
	Actual			0.93		2.27		1.26	0.58	1.00						2.30		1.24	4.96
21	Expected	1.00		2.00		1.00	1.00	2.00		1.00						3.00		1.00	5.00
	Actual	1.00		1.99		0.90	1.00	1.94		0.93						2.73		0.93	4.46 <sup>b</sup>
22	Expected	1.00		5.00			2.00	3.00							1.00	3.00			2.00
	Actual	1.00		5.00			2.05	3.01							0.83	2.71			1.97
23	Expected	2.00		3.00			2.00	2.00	1.00			1.00			1.00	2.00			2.00
	Actual	2.00		3.01			2.03	2.03	1.01			0.97			0.92	1.86			2.00
24	Expected	1.00	1.00	1.00			1.00	1.00	1.00			1.00		2.00	3.00	3.00			2.00
	Actual	1.00	0.98	0.98			0.99	0.99	0.97			0.93		2.04	2.41	2.57			1.99
25	Expected	1.00	1.00	1.00		1.00			1.00	1.00	1.00	1.00		3.00	2.00	1.00		1.00	2.00
	Actual	0.95	0.97	1.03		1.10			0.96	1.03	1.00	0.96		3.29	1.67	0.85		1.00	2.00

**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)
26	Expected			1.00		2.00	1.00			3.00	1.00			2.00	1.00	1.00		1.00	2.00
	Actual			1.01		2.01	1.00			3.05	0.99			2.20	0.76	0.88		0.97	2.01
27	Expected		1.00	2.00	1.00	2.00	2.00		1.00	3.00	1.00			2.00	1.00	1.00		1.00	
	Actual		0.98	1.96	0.00 <sup>a</sup>	2.01	2.00		0.98	3.02	0.95			2.15	0.83	0.93		0.99	
28	Expected		1.00	3.00	1.00	2.00	1.00		2.00	2.00		2.00	1.00	1.00	1.00	1.00			
	Actual		1.05	3.06	0.00 <sup>a</sup>	2.08	1.06		1.86	2.00		1.50	0.98	1.01	0.89	0.98			
29	Expected			2.00		1.00	1.00		2.00	2.00	4.00	3.00	1.00			1.00	1.00		
	Actual			2.00		0.99	1.00		1.96	2.06	4.06	3.01	0.99			1.00	0.00 <sup>a</sup>		
30	Expected					1.00		1.00		3.00	5.00	2.00	1.00			1.00	2.00		1.00
	Actual					0.96		0.98		3.06	5.00	2.00	1.01			1.00	0.00 <sup>a</sup>		0.94
31	Expected	1.00		1.00		1.00		1.00		4.00	1.00		1.00	2.00		2.00	3.00		1.00
	Actual	1.00		1.04		1.05		0.93		4.17	1.01		1.01	2.37		1.99	0.00 <sup>a</sup>		0.92
32	Expected	2.00		2.00		1.00	1.00	1.00		3.00			1.00	2.00	1.00	2.00	1.00		1.00
	Actual	2.00		1.99		1.03	0.96	0.94		2.96			0.98	2.24	0.77	1.73	0.00 <sup>a</sup>		0.92
33	Expected	2.00	1.00	2.00		2.00	1.00	1.00			1.00	1.00			1.00	2.00	1.00	1.00	2.00
	Actual	2.00	1.32	1.99		1.98	0.97	0.94			1.01	1.00			0.88	1.71	0.00 <sup>a</sup>	1.02	1.96
34	Expected	1.00	1.00	1.00		1.00		2.00			3.00	1.00	1.00	1.00		1.00	1.00	1.00	3.00
	Actual	1.00	1.26	0.96		1.02		1.97			3.02	1.00	1.03	1.13		0.98	0.00 <sup>a</sup>	1.00	2.97
35	Expected	1.00	1.00	1.00		1.00		1.00		1.00	2.00	1.00	1.00	1.00		2.00			4.00
	Actual	0.97	0.99	0.99		1.00		1.01		1.01	1.95	0.97	1.00	1.04		1.89			3.98
36	Expected	2.00	1.00	1.00		3.00	2.00	2.00		1.00	1.00	1.00			1.00	1.00			2.00
	Actual	2.06	0.99	1.03		3.00	2.06	2.10		1.04	1.03	0.80			0.86	0.90			2.06
37	Expected	4.00				2.00	3.00	1.00		2.00			1.00		2.00				1.00
	Actual	4.06				2.02	3.00	1.04		2.07			0.75		1.66				1.00
38	Expected	4.00		3.00		1.00	4.00	2.00		1.00			1.00		2.00	1.00			1.00
	Actual	4.00		3.09		1.02	3.98	2.02		1.02			0.95		1.75	0.92			1.01
39	Expected	1.00		3.00		1.00	3.00	2.00		1.00	1.00	1.00	1.00		1.00	1.00			1.00
	Actual	1.07		3.22		1.00	3.33	2.21		1.09	1.09	0.83	1.10		0.86	0.92			1.04
40	Expected	1.00	1.00	1.00	1.00	1.00	2.00	2.00		2.00	3.00	2.00	1.00						1.00
	Actual	1.00	0.99	1.00	0.00 <sup>a</sup>	1.07	2.00	2.02		2.06	2.98	1.50	1.00						0.98
41	Expected		2.00		1.00	1.00	1.00		1.00	2.00	4.00	2.00			1.00			1.00	1.00
	Actual		1.92		0.00 <sup>a</sup>	1.01	1.00		0.94	1.98	3.84	1.65			0.80			0.98	0.92
42	Expected		1.00		1.00	1.00	2.00		1.00	1.00	3.00	2.00	1.00		2.00	1.00		1.00	
	Actual		0.94		0.00 <sup>a</sup>	0.99	2.00		0.93	0.99	2.90	1.60	0.99		1.67	0.86		0.94	
43	Expected	1.00		1.00	1.00	1.00	1.00		1.00		2.00	3.00	1.00		3.00	1.00		1.00	
	Actual	1.00		1.04	0.00 <sup>a</sup>	1.01	1.04		0.99		2.00	2.94	1.02		2.36	0.86		0.96	
44	Expected	1.00		1.00		3.00	2.00	1.00	1.00		2.00	1.00	1.00		1.00	3.00			1.00
	Actual	1.00		1.01		2.93	1.99	1.02	0.98		1.98	0.95	0.99		0.85	2.75			0.99
45	Expected	2.00				3.00	2.00	1.00			2.00	1.00				3.00		1.00	3.00
	Actual	1.87				3.00	1.97	1.12			2.11	1.01				3.02		1.01	3.05
46	Expected	2.00			1.00	1.00	2.00		1.00		3.00			2.00		1.00		1.00	4.00
	Actual	2.00			0.00 <sup>a</sup>	1.01	1.98		0.98		2.96			2.25		0.91		0.96	3.89
47	Expected	2.00	1.00	2.00	1.00	1.00	2.00		2.00		2.00			2.00					2.00
	Actual	2.00	0.95	2.02	0.00 <sup>a</sup>	0.99	2.00		1.93		1.96			2.25					1.98
48	Expected		2.00	2.00		2.00	1.00		4.00		2.00			1.00					4.00
	Actual		1.92	1.94		1.87	1.00		3.47 <sup>b</sup>		1.95			0.90					3.58 <sup>b</sup>
49	Expected	1.00	1.00	1.00		1.00	1.00		2.00	1.00	2.00			1.00	2.00	1.00			2.00
	Actual	1.00	0.97	0.99		1.02	0.99		1.54 <sup>b</sup>	1.01	1.96			1.15	1.63	0.87			1.66 <sup>b</sup>
50	Expected	1.00	1.00	2.00		1.00	1.00		2.00	1.00				1.00	3.00	2.00			1.00
	Actual	1.00	0.97	1.95		1.01	0.98		1.58 <sup>b</sup>	1.01				1.05	2.45	1.75			0.96

**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)	
51	Expected	1.00		3.00		2.00			1.00	2.00				1.00	1.00	3.00			1.00	
	Actual	1.00		3.08		2.06			1.01	2.11				0.89	0.90	2.48			1.04	
52	Expected			4.00		2.00	1.00		1.00	1.00			1.00	2.00	2.00	2.00			1.00	1.00
	Actual			3.46		2.00	1.00		0.97	1.00			0.98	2.07	1.72	1.67			0.96	0.98
53	Expected			1.00		2.00	2.00		2.00	1.00				2.00	2.00	1.00			1.00	2.00
	Actual			1.00		2.00	2.00		1.72 <sup>b</sup>	1.01			0.98	2.12	0.76				0.97	1.79 <sup>b</sup>
54	Expected	1.00		2.00			3.00	1.00	2.00	2.00			1.00		2.00	1.00			1.00	2.00
	Actual	1.14		1.81			3.00	1.16	1.42 <sup>b</sup>	2.34			0.73		1.56	1.03			0.59	1.50 <sup>b</sup>
55	Expected	1.00	1.00	1.00			3.00	1.00	1.00	2.00	1.00		1.00		3.00	1.00	1.00		1.00	1.00
	Actual	1.00	1.15	1.00			3.00	1.03	0.98	2.05	1.01		1.01		2.63	0.88	0.00 <sup>a</sup>			0.98
56	Expected		1.00			1.00	2.00	1.00	1.00	1.00	2.00	1.00	2.00		3.00	1.00	1.00	1.00		1.00
	Actual		1.09			0.98	2.00	0.97	0.97	0.97	1.96	0.98	1.97		2.57	0.85	0.00 <sup>a</sup>		0.97	
57	Expected	2.00	2.00			1.00	2.00		2.00		2.00	2.00	1.00		2.00	1.00			1.00	
	Actual	2.00	2.01			0.99	1.98		1.97		1.98	1.98	1.01		1.76	0.88			0.97	
58	Expected	3.00	2.00	1.00		1.00	2.00		1.00	1.00	1.00	1.00	1.00			2.00	1.00	1.00		1.00
	Actual	3.00	2.10	1.02		0.98	1.96		1.00	1.02	0.99	0.97	1.02			1.83	0.00 <sup>a</sup>		0.97	
59	Expected	2.00		1.00		1.00	4.00		1.00	2.00			2.00		1.00	1.00	1.00		1.00	1.00
	Actual	1.88		1.00		0.98	4.00		0.96	1.99			1.99		0.92	0.91	0.00 <sup>a</sup>			0.99
60	Expected	1.00		1.00			4.00	1.00		2.00	1.00		2.00		2.00	1.00	1.00		1.00	2.00
	Actual	1.00		1.05			4.14	0.98		2.07	1.02		2.04		1.73	0.90	0.00 <sup>a</sup>			1.98
61	Expected	1.00				1.00	2.00	1.00		2.00	1.00		2.00		2.00	1.00			1.00	3.00
	Actual	1.00				1.00	2.01	0.94		2.02	0.98		1.98		1.63	0.85			0.97	2.91
62	Expected	1.00				1.00	3.00	1.00					1.00	2.00	1.00	2.00		1.00	1.00	4.00
	Actual	1.00				1.03	3.16	1.00					1.01	2.07	0.90	1.90		1.02	1.02	4.09
63	Expected		1.00				2.00		3.00	1.00		2.00	1.00		2.00	2.00	1.00	1.00	1.00	2.00
	Actual		0.99				2.00		2.77	0.97		1.70	0.98		1.70	1.66	0.00 <sup>a</sup>	0.87	1.87	
64	Expected		1.00				2.00		4.00	3.00		1.00	1.00		1.00			2.00		2.00
	Actual		1.05				2.00		3.23	2.48		0.95	0.85		0.97			0.00 <sup>a</sup>		1.95
65	Expected		1.00	1.00			2.00		3.00	3.00			1.00		1.00	1.00	1.00			1.00
	Actual		1.40	1.37			2.00		2.22	2.12			0.71		1.28	1.27	0.00 <sup>a</sup>			0.71
66	Expected	1.00	1.00	2.00			1.00		1.00	2.00		2.00			2.00	2.00	1.00			1.00
	Actual	1.00	1.03	2.12			1.12		1.02	2.17		1.50			1.76	1.86	0.00 <sup>a</sup>			1.07
67	Expected	2.00	1.00	2.00	1.00		2.00		2.00			2.00			2.00	3.00				1.00
	Actual	2.00	0.96	1.96	0.00 <sup>a</sup>		2.03		1.92			1.78			1.76	2.25				1.00
68	Expected	2.00			1.00		3.00		2.00	2.00		1.00	2.00			3.00				2.00
	Actual	2.00			0.00 <sup>a</sup>		3.13		2.00	2.26		0.95	2.16			2.56				2.10
69	Expected	1.00				1.00	2.00		1.00	2.00			2.00			2.00				1.00
	Actual	1.00				0.95	2.00		0.96	2.01			1.99			1.85				1.02

<sup>a</sup>Cys and/or Trp were completely destroyed during hydrolysis.  
<sup>b</sup>Val-Val, Val-Val-Thr, Val-Val-Val, Ile-Ile and/or Ile-Val-Ile bonds were partially destroyed during hydrolysis.

**Date:** 30 MAY 2007

**Signature:** Signature on File

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

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