

Peptide Array, Influenza Virus B/Nanchang/12/1998 Pre-Hemagglutinin Protein

Catalog No. NR-2605

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Product Description: The 96-peptide array spans the pre-hemagglutinin protein of the B/Nanchang/12/1998 strain of influenza virus (GenPept: AAU94712). Peptides are 16- to 17-mers, with 11 or 12 amino acid overlaps.

Lot: 333827-333922-X

The following information applies to all peptides:

- Appearance Off white lyophilized powder (Peptide 34)
White lyophilized powder (All other peptides)
- Mass spectral analysis Correct MW by Electrospray
- Counter Ion Trifluoroacetate

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

Table 1						
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Purity by HPLC ^a	Peptide Content ^b
1 of 96	05/01/06	17	1 MKAIIVLLMVVTSNADR 17	1874.3	51.0%	75.2%
2 of 96	04/17/06	17	7 LLMVVTSNADRICTGIT 23	1807.2	36.3%	83.2%
3 of 96	03/31/06	17	13 SNADRICTGITSSNSPH 29	1759.9	92.6%	80.8%
4 of 96	04/17/06	17	19 CTGITSSNSPHVVKTAT 35	1702.9	95.7%	82.1%
5 of 96	03/31/06	17	25 SNSPHVVKTATQGEVNV 41	1766.9	87.4%	77.4%
6 of 96	04/03/06	17	31 VKTATQGEVNVTVIPL 47	1726.0	90.4%	85.3%
7 of 96	04/10/06	17	37 GEVNVTVIPLTTTPTK 53	1727.0	90.8%	80.3%
8 of 96	03/27/06	17	43 GVIPLTTTPTKSHFANL 59	1797.1	98.2%	82.6%
9 of 96	04/10/06	17	49 TTPTKSHFANLKGTRTR 65	1916.2	94.1%	69.3%
10 of 96	04/17/06	17	55 HFANLKGTRTRGKCPD 71	1914.2	98.1%	70.6%
11 of 96	04/11/06	17	61 GTRTRGKCPDCLNCTD 77	1853.1	93.1%	74.7%
12 of 96	04/11/06	17	67 KLCPDCLNCTDLVALG 83	1793.1	80.1%	84.1%
13 of 96	04/12/06	17	73 LNCTDLVALGRPMCVG 89	1777.1	80.8%	82.8%
14 of 96	04/18/06	17	79 DVALGRPMCVGTTPSAK 95	1703.0	95.2%	79.7%
15 of 96	04/13/06	17	85 PMCVGTTPSAKASILHE 101	1742.1	83.4%	84.2%
16 of 96	04/12/06	17	91 TPSAKASILHEVRPVT 107	1793.1	81.3%	81.1%
17 of 96	04/13/06	17	97 SILHEVRPVTSGCFPIM 113	1886.3	84.6%	82.8%
18 of 96	04/12/06	17	103 RPVTSGCFPIMHDRTKI 119	1958.3	92.4%	77.9%
19 of 96	04/18/06	17	109 CFPIMHDRTKIRQLPNL 125	2082.5	94.4%	82.6%
20 of 96	04/19/06	17	115 DRTKIRQLPNLLRGYEN 131	2086.4	89.5%	77.1%
21 of 96	04/14/06	17	120 RQLPNLLRGYENIRLST 136	2043.4	89.6%	80.9%
22 of 96	04/18/06	17	126 LRGYENIRLSTQNAINA 142	1933.2	81.6%	81.9%
23 of 96	04/18/06	17	132 IRLSTQNAINAEKAPGG 148	1739.9	80.2%	85.6%
24 of 96	04/21/06	17	138 NAINAEKAPGGPYRLGT 154	1728.9	88.5%	79.4%
25 of 96	04/24/06	17	144 KAPGGPYRLGTSGSPN 160	1661.9	80.6%	77.7%

Table 1						
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Purity by HPLC ^a	Peptide Content ^b
26 of 96	04/10/06	17	150 YRLGTSGSCP NATSKSG 166	1685.8	94.0%	79.0%
27 of 96	04/14/06	17	156 GSCP NATSKSGFFATMA 172	1676.9	80.8%	89.4%
28 of 96	04/10/06	17	162 TSKSGFFATMAWAVPKD 178	1844.1	94.1%	78.4%
29 of 96	04/10/06	17	168 FATMAWAVPKDNNKNAT 184	1879.1	88.1%	81.5%
30 of 96	04/10/06	17	174 AVPKDNNKNATNPLTVE 190	1825.0	94.6%	81.6%
31 of 96	04/10/06	17	180 NKNATNPLTVEVPYVCI 196	1875.2	80.8%	79.9%
32 of 96	04/11/06	17	186 PLTVEVPYVCI EGEDQI 202	1904.2	81.2%	87.0%
33 of 96	04/19/06	17	192 PYVCI EGEDQITVWGFH 208	1993.2	90.3%	82.4%
34 of 96	04/18/06	17	198 GEDQITVWGFHSDDKTQ 214	1963.0	80.5%	76.2%
35 of 96	04/10/06	17	204 VWGFHSDDKTQMKNLYG 220	2026.3	88.4%	78.2%
36 of 96	04/10/06	17	210 DDKTQMKNLYGDSNPQK 226	1982.2	87.8%	80.4%
37 of 96	04/14/06	17	216 KNLYGDSNPQKFTSSAN 232	1871.0	81.6%	80.0%
38 of 96	04/10/06	17	222 SNPQKFTSSANGVTTHY 238	1839.0	92.2%	84.1%
39 of 96	04/10/06	17	228 TSSANGVTTHYVSQIGG 244	1678.8	87.4%	78.3%
40 of 96	04/10/06	17	234 VTTHYVSQIGGFPDQTE 250	1879.0	88.5%	81.6%
41 of 96	04/19/06	17	240 SQIGGFPDQTEDGGLPQ 256	1745.8	95.8%	83.3%
42 of 96	04/10/06	17	246 PDQTEDGGLPQSGRIVV 262	1767.9	93.2%	80.5%
43 of 96	04/10/06	17	252 GGLPQSGRIVVDYMVQK 268	1847.2	82.7%	80.9%
44 of 96	04/13/06	17	258 GRIVVDYMVQKPGKTGT 274	1849.2	96.8%	74.8%
45 of 96	04/10/06	17	264 YMVQKPGKTGTIVYQRG 280	1926.3	88.4%	72.5%
46 of 96	04/13/06	17	270 GKTGTIVYQRGVLLPQK 286	1858.2	91.4%	75.4%
47 of 96	04/14/06	17	276 VYQRGVLLPQK VWCASG 292	1904.3	93.4%	82.9%
48 of 96	04/19/06	17	282 LLPQK VWCASGRSKVIK 298	1913.4	81.1%	81.2%
49 of 96	04/13/06	17	288 WCASGRSKVIK GSLPLI 304	1815.2	92.8%	73.8%
50 of 96	04/14/06	17	294 SKVIK GSLPLIGEADCL 310	1743.1	85.1%	77.5%
51 of 96	04/18/06	17	300 SLPLIGEADCLHEKYGG 316	1802.0	92.8%	81.2%
52 of 96	04/13/06	17	306 EADCLHEKYGG LNKSKP 322	1889.1	85.5%	77.1%
53 of 96	04/14/06	17	312 EKYGG LNKSKPYTGEH 328	1971.2	91.9%	74.1%
54 of 96	04/18/06	17	318 NKSKPYTGEHAKAIGN 334	1878.1	80.3%	75.5%
55 of 96	04/17/06	17	324 YTGEHAKAIGNCPIWVK 340	1887.2	98.4%	83.6%
56 of 96	04/10/06	17	330 KAIGNCPIWVK TPLKLA 346	1852.3	89.7%	73.1%
57 of 96	04/20/06	17	336 PIWVK TPLKLANGTKYR 352	1985.4	91.4%	64.8%
58 of 96	04/13/06	17	342 PLKLANGTKYRPPAKLL 358	1880.3	98.2%	75.5%
59 of 96	04/18/06	17	348 GTKYRPPAKLLKERGFF 364	2008.4	92.1%	77.2%
60 of 96	04/18/06	17	354 PAKLLKERGFFGAIAGF 370	1822.2	92.7%	80.7%
61 of 96	04/20/06	17	360 ERGFFGAIAGFLEGGWE 376	1843.0	96.9%	81.4%
62 of 96	04/19/06	17	366 AIAGFLEGGWEGMIAGW 382	1765.0	96.1%	83.3%
63 of 96	04/18/06	17	372 EGGWEGMIAGWHGYTSH 388	1875.0	88.2%	80.9%
64 of 96	04/17/06	17	378 MIAGWHGYTSHGAHGVA 394	1751.9	92.7%	75.9%
65 of 96	04/18/06	17	384 GYTSHGAHGVA AADLK 400	1653.8	87.2%	74.1%

Table 1						
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Purity by HPLC ^a	Peptide Content ^b
66 of 96	04/18/06	17	390 AHGVAVAADLKSTQEAI 406	1680.9	92.5%	74.9%
67 of 96	04/18/06	17	396 AADLKSTQEAINKITKN 412	1845.1	80.6%	79.8%
68 of 96	04/12/06	17	402 TQEAINKITKNLSLSE 418	1903.1	89.7%	80.3%
69 of 96	04/17/06	17	408 KITKNLSLSELEVKNL 424	1943.3	88.4%	83.3%
70 of 96	04/18/06	17	414 NSLSELEVKNLQRLSGA 430	1858.1	89.0%	75.7%
71 of 96	04/10/06	17	420 EVKNLQRLSGAMDELHN 436	1954.2	86.7%	80.5%
72 of 96	04/03/06	17	426 RLSGAMDELHNEILELD 442	1955.2	83.5%	81.6%
73 of 96	04/10/06	17	432 DELHNEILELDEKVDDL 448	2039.2	83.3%	80.2%
74 of 96	03/31/06	17	438 ILELDEKVDDL RADTIS 454	1945.2	87.1%	70.7%
75 of 96	04/10/06	17	444 KVDDL RADTISSQIELA 460	1874.1	80.9%	75.7%
76 of 96	04/11/06	17	450 ADTISSQIELAVLLSNE 466	1803.0	89.7%	67.4%
77 of 96	04/12/06	17	455 SQIELAVLLSNEGIINS 471	1800.0	80.1%	81.8%
78 of 96	04/14/06	17	461 VLLSNEGIINSEDEHLL 477	1895.1	87.7%	79.8%
79 of 96	04/06/06	17	467 GIINSEDEHLLALERKL 483	1950.2	88.3%	81.6%
80 of 96	04/10/06	17	473 DEHLLALERKLK KMLGP 489	1991.4	95.1%	68.9%
81 of 96	04/10/06	17	479 LERKLK KMLGPS AVDIG 495	1855.3	91.7%	71.6%
82 of 96	04/10/06	17	485 KMLGPS AVDIGNGCFET 501	1739.0	90.2%	81.3%
83 of 96	04/11/06	17	491 AVDIGNGCFETKHKCNQ 507	1864.1	87.2%	73.6%
84 of 96	04/13/06	17	497 GCFETKHKCNQTCLDRI 513	1996.3	83.1%	76.5%
85 of 96	04/14/06	17	503 HKCNQTCLDRIAAGTFN 519	1892.2	90.1%	79.7%
86 of 96	04/24/06	17	509 CLDRIAAGTFNAGEFSL 525	1785.0	55.9%	84.6%
87 of 96	04/10/06	17	515 AGTFNAGEFSLPTFDSL 531	1773.9	93.6%	85.8%
88 of 96	04/11/06	17	521 GEFSLPTFDSL NITAAS 537	1769.9	80.8%	85.4%
89 of 96	04/19/06	17	527 TFDL NITAASLNDDGL 543	1766.9	82.9%	82.8%
90 of 96	04/19/06	17	533 ITAASLNDDGLDNHTIL 549	1782.9	95.1%	85.6%
91 of 96	04/20/06	17	539 NDDGLDNHTILLYYSTA 555	1925.0	80.1%	83.2%
92 of 96	03/27/06	17	545 NHTILLYYSTAASSLAV 561	1824.1	58.4%	85.7%
93 of 96	04/21/06	17	551 YYSTAASSLAVTLMIAI 567	1775.1	46.1%	83.2%
94 of 96	04/21/06	17	557 SSLAVTLMIAIFIVY MV 573	1871.4	32.7%	88.4%
95 of 96	04/21/06	17	563 LMIAIFIVY MVS RDNV S 579	1971.4	23.7%	81.5%
96 of 96	04/21/06	16	569 IVY MVS RDNV SCSICL 584	1802.2	27.6%	75.3%

^a% full-length
^bRemainder 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 of 96	Expected	2.00	1.00	2.00					2.00	2.00	1.00	2.00			1.00	1.00			3.00
	Actual	2.09	1.03	2.06					0.80 ^a	2.00	1.04	1.80			0.87	0.90			0.60 ^a
2 of 96	Expected	1.00	1.00	2.00	1.00		1.00		2.00	2.00		1.00			1.00	3.00			2.00
	Actual	1.00	0.83	1.81	0.00 ^b		0.96		1.70	1.80		0.79 ^c			0.91	2.58			1.15 ^a
3 of 96	Expected	1.00	1.00	3.00	1.00		1.00	1.00	2.00					1.00	4.00	2.00			
	Actual	1.04	0.94	3.00	0.00 ^b		1.06	0.99	1.52 ^d					0.94	3.81	1.88			
4 of 96	Expected	1.00		1.00	1.00		1.00	1.00	1.00		1.00			1.00	3.00	4.00			2.00
	Actual	0.99		0.98	0.00 ^b		1.00	0.93	0.93		0.96			0.89	2.82	3.54			0.85 ^a
5 of 96	Expected	1.00		2.00		2.00	1.00	1.00			1.00			1.00	2.00	2.00			4.00
	Actual	1.03		2.09		2.00	1.16	0.91			1.03			1.07	1.80	1.80			2.70 ^a
6 of 96	Expected	1.00		1.00		2.00	2.00		1.00	1.00	1.00			1.00		3.00			4.00
	Actual	1.08		1.07		2.00	2.20		0.41 ^a	1.10	0.83			1.05		3.10			3.60
7 of 96	Expected			1.00	1.00	2.00	2.00		1.00	1.00	1.00			2.00	5.00	5.00			3.00
	Actual			1.02		1.00	2.14		0.37 ^a	1.07	1.06			2.02		4.83			2.60 ^a
8 of 96	Expected	1.00		1.00			1.00	1.00	1.00	2.00	1.00		1.00	2.00	1.00	4.00			1.00
	Actual	1.06		0.97			1.05	0.98	0.85 ^a	2.00	0.99		1.03	1.82	1.11	3.62			0.88 ^a
9 of 96	Expected	1.00	2.00	1.00			1.00	1.00		1.00	2.00		1.00	1.00	1.00	5.00			
	Actual	1.01	2.06	0.98			1.03	0.99		1.00	2.00		0.99	0.73 ^a	1.03	4.19			
10 of 96	Expected	1.00	2.00	2.00	1.00		2.00	1.00		2.00	2.00		1.00	1.00		2.00			
	Actual	1.00	2.09	2.01	0.00 ^b		2.05	0.93		2.00	2.01		0.95	0.88		1.93			
11 of 96	Expected		2.00	3.00	3.00		2.00			2.00	1.00			1.00		3.00			
	Actual		2.19	3.00	0.00 ^b		2.12			2.12	1.06			0.93		3.06			
12 of 96	Expected	1.00		4.00	3.00		1.00			4.00	1.00			1.00		1.00			1.00
	Actual	1.02		3.79	0.00 ^b		1.07			4.00	1.03			0.93		1.06			0.95
13 of 96	Expected	1.00	1.00	3.00	2.00		2.00			3.00		1.00		1.00	1.00	1.00			2.00
	Actual	1.07	1.11	3.00	0.00 ^b		2.04			3.00		0.95		1.07		0.85			1.98
14 of 96	Expected	2.00	1.00	1.00	1.00		2.00			1.00	1.00	1.00		2.00	1.00	2.00			2.00
	Actual	1.95	1.04	0.96	0.00 ^b		2.01			1.00	0.98	0.98		1.83	0.96	1.83			1.93
15 of 96	Expected	2.00			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		2.00	2.00	2.00			1.00
	Actual	2.07			0.00 ^b	1.00	0.96	1.08	0.76 ^d	0.81	1.05	0.84		1.93	1.24 ^f	1.79			0.84
16 of 96	Expected	2.00	1.00			1.00		1.00	1.00	1.00	1.00			2.00	3.00	2.00			2.00
	Actual	2.22	0.97			1.11		1.16	0.96	1.00	1.13			2.19	3.08	2.09			2.16
17 of 96	Expected		1.00		1.00	1.00	1.00	1.00	2.00	1.00		1.00	1.00	2.00	2.00	1.00			2.00
	Actual		0.97		0.00 ^b	1.23	1.31	1.33	1.89	1.00		0.82	1.25	2.30	1.52 ^f	1.18			2.27
18 of 96	Expected		2.00	1.00	1.00		1.00	1.00	2.00		1.00	1.00	1.00	2.00	1.00	2.00			1.00
	Actual		2.09	0.85	0.00 ^b		1.00	1.00	1.79		0.98	0.94	0.98	1.86	0.64 ^f	1.87			0.99
19 of 96	Expected		2.00	2.00	1.00	1.00			1.00	2.00	2.00	1.00	1.00	2.00		1.00			
	Actual		1.90	1.90	0.00 ^b	0.95		0.98	1.60	2.00	0.98	0.80	1.04	1.87		0.97			
20 of 96	Expected		3.00	3.00		2.00	1.00		1.00	3.00	1.00			1.00		1.00			1.00
	Actual		3.12	2.96		1.86	1.00		0.89	3.15	1.03			0.99		1.01			0.95
21 of 96	Expected		3.00	2.00		2.00	1.00		1.00	4.00				1.00	1.00	1.00			1.00
	Actual		3.16	1.92		2.00	1.08		0.85	4.33				1.04	0.65 ^f	1.00			1.07
22 of 96	Expected	2.00	2.00	3.00		2.00	1.00		2.00	2.00					1.00	1.00			1.00
	Actual	1.93	1.68	2.92		1.81	0.97		1.65	2.00					0.92	0.96			0.98
23 of 96	Expected	3.00	1.00	2.00		2.00	2.00		2.00	1.00	1.00			1.00	1.00	1.00			
	Actual	2.94	0.90	1.89		1.79	2.02		1.63	1.00	0.99			0.94	0.91	0.93			
24 of 96	Expected	3.00	1.00	2.00		1.00	3.00		1.00	1.00	1.00			2.00		1.00			1.00
	Actual	2.97	1.02	1.91		0.95	3.05		0.96	1.00	1.00			1.88		0.96			0.98
25 of 96	Expected	1.00	1.00	1.00	1.00		4.00			1.00	1.00			3.00	2.00	1.00			1.00
	Actual	1.00	1.04	0.93	0.00 ^b		4.12			1.09	0.99			2.86	1.38 ^f	0.97			0.97

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)
26 of 96	Expected	1.00	1.00	1.00	1.00		3.00			1.00	1.00			1.00	4.00	2.00		1.00	
	Actual	0.99	0.95	0.96	0.00 ^b		3.03			1.00	0.99			0.98	3.22	1.87		0.92	
27 of 96	Expected	3.00		1.00	1.00		2.00				1.00	1.00	2.00	1.00	3.00	2.00			
	Actual	2.92		0.80	0.00 ^b		2.00				1.02	0.93	1.89	1.03	2.50	1.76			
28 of 96	Expected	3.00		1.00			1.00				2.00	1.00	2.00	1.00	2.00	2.00	1.00		1.00
	Actual	3.00		0.97			1.04				1.99	0.94	1.89	0.89	1.86	1.88	0.00 ^g		0.99
29 of 96	Expected	4.00		4.00							2.00	1.00	1.00	1.00		2.00	1.00		1.00
	Actual	4.00		3.78							2.01	0.70 ^c	1.02	0.83		1.94	0.00 ^g		1.03
30 of 96	Expected	2.00		5.00		1.00				1.00	2.00			2.00		2.00			2.00
	Actual	2.10		4.96		1.00				1.07	2.07			1.96		2.06			2.01
31 of 96	Expected	1.00		3.00	1.00	1.00			1.00	1.00	1.00			2.00		2.00		1.00	3.00
	Actual	1.05		3.15	0.00 ^b	1.00			0.96	1.09	1.08			2.06		2.06		0.97	3.30
32 of 96	Expected			1.00	1.00	4.00	1.00		2.00	1.00				2.00		1.00		1.00	3.00
	Actual			0.97	0.00 ^b	3.49	1.03		1.84	1.00				1.89		0.91		0.93	2.95
33 of 96	Expected			1.00	1.00	3.00	2.00	1.00	2.00				1.00	1.00		1.00	1.00	1.00	2.00
	Actual			1.09	0.00 ^b	3.00	2.35	1.21	2.00				1.20	0.93		0.99	0.00 ^g	0.92	1.93
34 of 96	Expected			3.00		3.00	2.00	1.00	1.00		1.00			1.00	2.00	1.00			1.00
	Actual			2.98		2.67	2.00	1.07	1.01		1.03			0.97		1.01	1.84	0.00 ^g	0.87
35 of 96	Expected			3.00		1.00	2.00	1.00		1.00	2.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
	Actual			3.11		1.00	2.20	1.03		1.06	2.13	0.80	1.02		1.15	1.03	0.00 ^g	1.01	0.77 ^h
36 of 96	Expected			5.00		2.00	1.00			1.00	3.00	1.00		1.00	1.00	1.00		1.00	
	Actual			5.00		1.98	1.12			1.11	3.23	1.07		1.03	1.00	1.05		1.10	
37 of 96	Expected	1.00		4.00		1.00	1.00			1.00	2.00		1.00	1.00	3.00	1.00		1.00	
	Actual	0.82		2.39		0.98	1.06			1.00	2.06		1.03	0.98	2.84	0.97		0.98	
38 of 96	Expected	1.00		2.00		1.00	1.00	1.00			1.00		1.00	1.00	3.00	3.00		1.00	1.00
	Actual	1.09		2.00		0.95	1.17	1.08			1.06		1.05	0.89	2.93	3.05		1.13	1.15
39 of 96	Expected	1.00		1.00		1.00	3.00	1.00	1.00						3.00	3.00		1.00	2.00
	Actual	1.03		1.00		0.97	3.12	1.00	0.95						2.86	2.71		0.93	2.04
40 of 96	Expected			1.00		3.00	2.00	1.00	1.00				1.00	1.00	1.00	3.00		1.00	2.00
	Actual			1.10		3.00	2.18	1.07	1.01				1.11	1.07	1.06	2.92		1.00	2.17
41 of 96	Expected			2.00		4.00	4.00		1.00	1.00			1.00	2.00	1.00	1.00			
	Actual			2.00		3.72	4.16		0.95	1.04			0.95	1.92	1.08	0.97			
42 of 96	Expected		1.00	2.00		3.00	3.00		1.00	1.00				2.00	1.00	1.00			2.00
	Actual		0.90	2.01		2.61	3.17		0.90	1.00				2.00	0.86	0.82			0.99 ^a
43 of 96	Expected		1.00	1.00		2.00	3.00		1.00	1.00	1.00	1.00		1.00	1.00			1.00	3.00
	Actual		0.93	1.10		2.00	3.54		0.30 ^a	1.23	1.18	1.12		1.18	1.09			1.14	2.27 ^a
44 of 96	Expected		1.00	1.00		1.00	3.00		1.00		2.00	1.00		1.00		2.00		1.00	3.00
	Actual		0.98	0.90		1.00	3.00		0.39 ^a		1.90	0.93		1.06		2.25		0.96	1.45 ^a
45 of 96	Expected		1.00			2.00	3.00		1.00		2.00	1.00		1.00		2.00		2.00	2.00
	Actual		1.06			1.73	3.00		0.57 ^a		1.93	0.92		0.97		1.76		1.91	1.61 ^a
46 of 96	Expected		1.00			2.00	3.00		1.00	2.00	2.00			1.00		2.00		1.00	2.00
	Actual		1.03			2.00	3.24		0.48 ^a	1.87	2.17			1.06		1.81		1.04	1.51 ^a
47 of 96	Expected	1.00	1.00		1.00	2.00	2.00			2.00	1.00			1.00	1.00		1.00	1.00	3.00
	Actual	1.07	1.25		0.00 ^b	2.00	2.19			2.00	1.02			0.99	0.62 ^f		0.00 ^g	0.86	2.72
48 of 96	Expected	1.00	1.00		1.00	1.00	1.00		1.00	2.00	3.00			1.00	2.00		1.00		2.00
	Actual	1.02	1.12		0.00 ^b	0.93	1.01		0.54 ^a	2.00	2.91			0.93	1.76		0.00 ^g		1.47 ^a
49 of 96	Expected	1.00	1.00		1.00		2.00		2.00	2.00	2.00			1.00	3.00		1.00		1.00
	Actual	0.98	1.10		0.00 ^b		2.06		1.31 ^a	2.00	1.90			0.92	1.79 ^f		0.00 ^g		0.39 ^a
50 of 96	Expected	1.00		1.00	1.00	1.00	2.00		2.00	3.00	2.00			1.00	2.00				1.00
	Actual	1.02		0.82	0.00 ^b	0.96	2.04		1.27 ^a	3.00	1.89			0.95	1.19				0.39 ^a

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)
51 of 96	Expected	1.00		1.00	1.00	2.00	3.00	1.00	1.00	3.00	1.00			1.00	1.00			1.00	
	Actual	1.01		0.99	0.00 ^b	1.84	2.88	1.00	0.91	3.00	0.96			0.95	0.91			0.96	
52 of 96	Expected	1.00		2.00	1.00	2.00	2.00	1.00		2.00	3.00			1.00	1.00			1.00	
	Actual	1.08		1.84	0.00 ^b	2.00	2.22	1.07		2.18	3.26			1.05	0.64 ^f			1.07	
53 of 96	Expected			1.00		2.00	3.00	1.00		1.00	3.00			1.00	1.00	1.00		3.00	
	Actual			0.80		1.78	3.00	0.91		1.02	3.06			0.97	0.80	0.86		2.95	
54 of 96	Expected	2.00		2.00		1.00	2.00	1.00	1.00		3.00			1.00	1.00	1.00		2.00	
	Actual	2.11		2.03		1.00	2.15	1.05	1.00		3.15			1.00	1.01	1.00		2.11	
55 of 96	Expected	2.00		1.00	1.00	1.00	2.00	1.00	2.00		2.00			1.00		1.00	1.00	1.00	1.00
	Actual	2.02		0.98	0.00 ^b	0.94	2.00	1.01	1.77		1.90			0.94		0.96	0.00 ^g	1.02	0.83
56 of 96	Expected	2.00		1.00	1.00		1.00		2.00	2.00	3.00			2.00		1.00	1.00		1.00
	Actual	2.05		1.00	0.00 ^b		1.00		1.79	2.04	2.87			1.89		1.02	0.00 ^g		0.83
57 of 96	Expected	1.00	1.00	1.00			1.00		1.00	2.00	3.00			2.00		2.00	1.00	1.00	1.00
	Actual	1.02	1.19	1.27			1.05		0.80	2.00	2.84			1.63		1.71	0.00 ^g	0.98	0.90
58 of 96	Expected	2.00	1.00	1.00			1.00			4.00	3.00			3.00		1.00		1.00	
	Actual	1.99	1.00	0.86			1.01			4.00	3.00			2.82		0.96		0.97	
59 of 96	Expected	1.00	2.00			1.00	2.00			2.00	3.00		2.00	2.00		1.00		1.00	
	Actual	1.02	2.14			0.97	2.08			2.00	3.02		2.24	1.94		0.96		0.99	
60 of 96	Expected	3.00	1.00			1.00	3.00		1.00	2.00	2.00			3.00	1.00				
	Actual	3.00	1.05			0.93	3.05		0.98	2.00	1.99			3.24	0.96				
61 of 96	Expected	2.00	1.00			3.00	5.00		1.00	1.00				3.00				1.00	
	Actual	2.00	1.23			2.62	5.00		0.96	1.00				3.29				0.00 ^g	
62 of 96	Expected	3.00				2.00	5.00		2.00	1.00		1.00	1.00					2.00	
	Actual	3.00				1.81	5.09		1.95	1.01		1.00	1.05					0.00 ^g	
63 of 96	Expected	1.00				2.00	5.00	2.00	1.00			1.00			1.00	1.00	2.00	1.00	
	Actual	1.16				2.00	5.56	2.24	1.03			0.80			1.06	1.07	0.00 ^g	1.08	
64 of 96	Expected	3.00					4.00	3.00	1.00			1.00			1.00	1.00	1.00	1.00	1.00
	Actual	2.89					4.00	2.88	0.94			0.96			0.92	0.92	0.00 ^g	0.98	0.99
65 of 96	Expected	4.00		1.00			3.00	2.00		1.00	1.00				1.00	1.00		1.00	2.00
	Actual	3.94		0.98			2.85	1.96		1.00	1.00				0.81	0.74 ⁱ		0.76 ^j	2.06
66 of 96	Expected	5.00		1.00		2.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00			2.00
	Actual	5.00		0.97		1.83	1.05	1.00	0.99	1.02	1.01				0.92	0.95			2.08
67 of 96	Expected	3.00		3.00		2.00			2.00	1.00	3.00				1.00	2.00			
	Actual	3.18		3.10		2.00			2.09	1.15	3.10				1.02	2.00			
68 of 96	Expected	1.00		3.00		3.00			2.00	2.00	2.00				2.00	2.00			
	Actual	1.12		2.73		3.00			2.09	2.35	2.19				1.94	2.08			
69 of 96	Expected			3.00		2.00			1.00	4.00	3.00				2.00	1.00			1.00
	Actual			2.99		2.00			0.76 ^d	4.21	2.61				2.00	0.88			0.90
70 of 96	Expected	1.00	1.00	2.00		3.00	1.00			4.00	1.00				3.00				1.00
	Actual	0.99	1.13	2.00		2.74	1.00			4.00	0.88				2.66				0.89
71 of 96	Expected	1.00	1.00	3.00		3.00	1.00	1.00		3.00	1.00	1.00			1.00				1.00
	Actual	0.98	0.98	2.83		2.60	1.00	0.94		2.88	0.80	0.75 ^c			0.90				0.77 ^h
72 of 96	Expected	1.00	1.00	3.00		3.00	1.00	1.00	1.00	4.00		1.00			1.00				
	Actual	1.06	1.04	3.08		3.00	1.08	1.07	0.94	4.22		1.03			0.99				
73 of 96	Expected			5.00		4.00		1.00	1.00	4.00	1.00								1.00
	Actual			5.28		4.00		1.14	0.88	4.30	1.07								1.08
74 of 96	Expected	1.00	1.00	4.00		2.00			2.00	3.00	1.00				1.00	1.00			1.00
	Actual	1.08	1.03	4.25		2.00			1.84	3.10	1.03				1.01	0.95			1.03
75 of 96	Expected	2.00	1.00	3.00		2.00			2.00	2.00	1.00				2.00	1.00			1.00
	Actual	2.16	1.13	3.24		2.00			2.00	2.20	1.00				2.18	0.99			0.99

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)
76 of 96	Expected	2.00		2.00		3.00			2.00	3.00					3.00	1.00			1.00
	Actual	2.14		2.91		3.12			2.14	3.00					3.09	1.22			0.82
77 of 96	Expected	1.00		2.00		3.00	1.00		3.00	3.00					3.00				1.00
	Actual	1.15		2.23		3.09	1.00		1.56 ^a	3.00					2.71				1.00
78 of 96	Expected			3.00		3.00	1.00	1.00	2.00	4.00					2.00				1.00
	Actual			2.82		2.81	1.05	1.11	0.77 ^a	4.00					1.92				0.81
79 of 96	Expected	1.00	1.00	2.00		3.00	1.00	1.00	2.00	4.00	1.00				1.00				
	Actual	1.03	1.00	1.95		2.70	0.99	1.11	0.62 ^a	4.00	0.99				0.89				
80 of 96	Expected	1.00	1.00	1.00		2.00	1.00	1.00		5.00	3.00	1.00		1.00					
	Actual	1.10	1.02	0.95		2.03	1.04	0.96		5.00	2.94	0.90		1.03					
81 of 96	Expected	1.00	1.00	1.00		1.00	2.00		1.00	3.00	3.00	1.00		1.00	1.00				1.00
	Actual	1.09	1.08	1.08		1.00	2.16		1.00	3.20	3.18	0.80		1.03	1.00				1.10
82 of 96	Expected	1.00		2.00	1.00	1.00	3.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00
	Actual	0.96		1.96	0.00 ^b	0.96	2.99		0.93	1.00	1.00	0.80	0.98	0.95	0.93	0.94			0.97
83 of 96	Expected	1.00		3.00	2.00	2.00	2.00	1.00	1.00		2.00		1.00			1.00			1.00
	Actual	1.01		3.00	0.00 ^b	1.89	2.08	1.05	0.95		2.12		1.04			1.06			1.00
84 of 96	Expected		1.00	2.00	3.00	2.00	1.00	1.00	1.00	1.00	2.00		1.00			2.00			
	Actual		0.93	1.80	0.00 ^b	2.00	1.02	1.00	0.89	1.05	2.04		1.01			1.79			
85 of 96	Expected	2.00	1.00	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00			2.00			
	Actual	1.98	0.96	2.63	0.00 ^b	0.87	1.00	0.94	0.91	1.00	0.97		0.97			1.62			
86 of 96	Expected	3.00	1.00	2.00	1.00	1.00	2.00		1.00	2.00			2.00		1.00	1.00			
	Actual	3.18	0.92	1.99	0.00 ^b	0.96	2.14		0.95	2.00			2.42		0.93	1.04			
87 of 96	Expected	2.00		2.00		1.00	2.00			2.00			3.00	1.00	2.00	2.00			
	Actual	1.97		1.94		0.96	2.05			2.00			2.92	0.93	1.84	1.87			
88 of 96	Expected	2.00		2.00		1.00	1.00		1.00	2.00			2.00	1.00	3.00	2.00			
	Actual	1.91		2.00		1.01	1.06		0.95	2.10			2.07	0.99	2.75	1.89			
89 of 96	Expected	2.00		5.00			1.00		1.00	3.00			1.00		2.00	2.00			
	Actual	2.09		5.00			1.03		0.99	3.12			1.02		1.90	1.92			
90 of 96	Expected	2.00		5.00			1.00	1.00	2.00	3.00					1.00	2.00			
	Actual	2.04		4.98			0.91	0.89	2.03	3.00					0.87	1.98			
91 of 96	Expected	1.00		5.00			1.00	1.00	1.00	3.00					1.00	2.00		2.00	
	Actual	1.00		4.67			1.01	0.91	0.92	2.80					0.90	1.72		1.73	
92 of 96	Expected	3.00		1.00				1.00	1.00	3.00					3.00	2.00		2.00	1.00
	Actual	3.01		1.03				1.01	0.98	3.00					3.06	1.83		2.18	0.98
93 of 96	Expected	4.00							2.00	2.00		1.00			3.00	2.00		2.00	1.00
	Actual	3.88							1.80	2.00		1.03			2.70	2.03		1.78	0.88
94 of 96	Expected	2.00							3.00	2.00		2.00	1.00		2.00	1.00		1.00	3.00
	Actual	2.13							2.23 ^a	2.00		1.90	1.12		1.85	0.94		0.94	2.29 ^a
95 of 96	Expected	1.00	1.00	2.00					3.00	1.00		2.00	1.00		2.00			1.00	3.00
	Actual	1.09	1.08	2.04					2.12 ^a	1.00		1.88	0.96		1.90			1.11	2.23 ^a
96 of 96	Expected		1.00	2.00	2.00				2.00	1.00		1.00			3.00			1.00	3.00
	Actual		0.99	2.00	0.00 ^b				1.21 ^a	1.20		0.89			2.76			0.80	2.78 ^a

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

^bCys was completely destroyed during hydrolysis

^cMet was partially destroyed during hydrolysis

^dIle was partially destroyed during hydrolysis

^ePro was partially destroyed during hydrolysis

^fSer was partially destroyed during hydrolysis

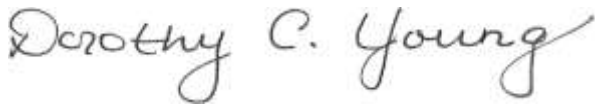
^gTrp was completely destroyed during hydrolysis

^hVal was partially destroyed during hydrolysis

ⁱThr was partially destroyed during hydrolysis

^jTyr was partially destroyed during hydrolysis

Date: 06 MAY 2014

Signature: 

Title: Technical Manager, BEI Authentication or designee

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