

Peptide Array, Influenza Virus B/Florida/4/2006 Nucleoprotein

Catalog No. NR-36045

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Product Description: The 110-peptide array spans the nucleoprotein (NP) of the B/Florida/4/2006 strain of influenza virus (GenPept: ACF54251). Peptides are 15- to 17-mers, with 11 or 12 amino acid overlaps.

Lot: P595784-A

The following information applies to all peptides:

- Appearance White lyophilized powder
- Mass spectral analysis Correct MW by Electrospray or MALDI
- 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	Peptide Content
01 of 110	6/21/2012	17	1-MSNMDIDGINTGTIDKT-17	1828	92.4%	80.9%
02 of 110	6/11/2012	17	6-IDGINTGTIDKTPEEIT-22	1819	98.2%	78.5%
03 of 110	6/8/2012	17	11-TGTIDKTPEEITPGTSG-27	1706	99.1%	66.1%
04 of 110	6/20/2012	17	16-KTPEEITPGTSGTTRPI-32	1787	99.4%	67.9%
05 of 110	6/21/2012	17	21-ITPGTSGTTRPIIRPAT-37	1741	97.7%	58.9%
06 of 110	6/21/2012	17	26-SGTTRPIIRPATLAPPS-42	1736	96.3%	70.4%
07 of 110	6/8/2012	17	31-PIIRPATLAPPSNKRTR-47	1890	96.7%	67.0%
08 of 110	6/21/2012	17	36-ATLAPPSNKRTRNPSPE-52	1838	98.5%	57.2%
09 of 110	6/21/2012	17	41-PSNKRTRNPSPERATTS-57	1901	82.0%	51.1%
10 of 110	6/11/2012	17	46-TRNPSPERATTSSSEDDV-62	1863	96.8%	69.9%
11 of 110	6/21/2012	17	51-PERATTSSSEDDVGRKTQ-67	1877	98.4%	76.8%
12 of 110	6/11/2012	17	56-TSSEDDVGRKTQKKQTP-72	1907	95.5%	68.7%
13 of 110	6/11/2012	17	61-DVGRKTQKKQTPTEIKK-77	1987	99.5%	63.8%
14 of 110	6/21/2012	17	66-TQKKQTPTEIKKSVYNM-82	2024	99.1%	65.4%
15 of 110	6/8/2012	17	71-TPTEIKKSVYNMVVKLG-87	1909	97.6%	75.9%
16 of 110	6/11/2012	17	76-KKSVYNMVVKLGEFYNQ-92	2048	95.2%	81.9%
17 of 110	6/8/2012	17	81-NMVVKLGEFYNQMMVKA-97	2004	93.1%	78.1%
18 of 110	6/8/2012	17	86-LGEFYNQMMVKAGLNDD-102	1947	97.9%	88.3%
19 of 110	6/11/2012	17	91-NQMMVKAGLNDDMERNL-107	1980	99.%	67.4%
20 of 110	6/7/2012	17	96-KAGLNDDMERNLIQNAH-112	1941	99.%	81.1%
21 of 110	6/11/2012	17	101-DDMERNLIQNAHAVERI-117	2026	99.8%	74.5%
22 of 110	6/20/2012	17	106-NLIQNAHAVERILLAAT-122	1849	95.9%	82.4%
23 of 110	6/11/2012	17	111-AHAVERILLAATDDKKT-127	1853	93.5%	74.1%
24 of 110	6/11/2012	17	116-RILLAATDDKKTQKK-132	2006	99.9%	70.0%
25 of 110	6/11/2012	17	121-ATDDKKTQKKKNARD-137	2024	99.%	68.0%

Table 1						
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Purity by HPLC	Peptide Content
26 of 110	6/8/2012	17	126-KTEFQKKKNARDVKEGK-142	2035	99.0%	60.3%
27 of 110	6/11/2012	17	131-KKKNARDVKEGKEEIDH-147	2026	98.6%	71.9%
28 of 110	6/11/2012	17	136-RDVKEGKEEIDHNKTGG-152	1913	99.5%	60.5%
29 of 110	6/11/2012	17	141-GKEEIDHNKTGGTFYKM-157	1956	98.2%	81.6%
30 of 110	6/7/2012	17	146-DHNKTGGTFYKMVRDDK-162	2014	99.0%	71.3%
31 of 110	6/20/2012	17	151-GGTFYKMVRDDKTIYFS-167	2030	98.0%	83.8%
32 of 110	6/20/2012	17	156-KMVRDDKTIYFSPIRIT-172	2084	99.2%	77.7%
33 of 110	6/7/2012	17	161-DKTIYFSPIRITFLKEE-177	2102	97.8%	81.8%
34 of 110	6/11/2012	17	166-FSPIRITFLKEEVKTTY-182	2104	99.0%	79.5%
35 of 110	6/7/2012	17	171-ITFLKEEVKTTYKTTMG-187	2022	95.3%	76.6%
36 of 110	6/20/2012	17	176-EEVKTTYKTTMGSDGFS-192	1913	97.4%	82.5%
37 of 110	6/20/2012	17	181-MYKTTMGSDGFSGLNHI-197	1861	98.2%	77.9%
38 of 110	6/20/2012	17	186-MGSDGFSGLNHIMIGHS-202	1761	97.0%	73.8%
39 of 110	6/11/2012	17	191-FSGLNHIMIGHSQMNDV-207	1901	98.6%	81.9%
40 of 110	6/21/2012	17	196-HIMIGHSQMNDVCFQRS-212	2003	95.2%	80.4%
41 of 110	6/11/2012	17	201-HSQMNDVCFQRSKALKR-217	2050	91.4%	71.7%
42 of 110	6/7/2012	17	206-DVCFQRSKALKRVGLDP-222	1934	95.5%	76.9%
43 of 110	6/21/2012	17	211-RSKALKRVGLDPSLIST-227	1843	95.7%	79.0%
44 of 110	6/20/2012	17	216-KRVGLDPSLISTFAGST-232	1751	97.8%	79.7%
45 of 110	6/20/2012	17	221-DPSLISTFAGSTIPRRS-237	1807	96.9%	76.6%
46 of 110	6/11/2012	17	226-STFAGSTIPRRSGATGV-242	1667	94.9%	73.7%
47 of 110	6/7/2012	17	231-STIPRRSGATGVAIKGG-247	1630	99.4%	72.9%
48 of 110	6/7/2012	17	236-RSGATGVAIKGGTLVA-252	1517	97.8%	74.5%
49 of 110	6/11/2012	17	241-GVAIKGGTLVAEAIKF-257	1661	95.5%	82.1%
50 of 110	6/20/2012	17	246-GGGTLVAEAIKFIGRAM-262	1721	98.5%	71.7%
51 of 110	6/11/2012	17	251-VAEAIKFIGRAMADRGL-267	1847	99.6%	80.2%
52 of 110	6/7/2012	17	256-RFIGRAMADRGLLRDIK-272	1990	99.5%	80.3%
53 of 110	6/11/2012	17	261-AMADRGLLRDIKAKTAY-277	1894	99.0%	75.4%
54 of 110	6/11/2012	17	266-GLLRDIKAKTAYEKILL-282	1947	99.9%	67.1%
55 of 110	6/20/2012	17	271-IKAKTAYEKILLNLKNK-287	1990	99.2%	64.8%
56 of 110	6/11/2012	17	276-AYEKILLNLKNKCSAPQ-292	1935	93.3%	75.7%
57 of 110	6/11/2012	17	281-LLNLKNKCSAPQKALV-297	1870	98.5%	81.7%
58 of 110	6/7/2012	17	286-NKCSAPQKALVDQVIG-302	1801	85.8%	62.6%
59 of 110	6/8/2012	17	291-PQKALVDQVIGSRNPG-307	1809	99.3%	82.2%
60 of 110	6/7/2012	17	296-LVDQVIGSRNPGIADIE-312	1798	99.4%	82.5%
61 of 110	6/21/2012	17	301-IGSRNPGIADIEDLTL-317	1797	99.9%	82.0%
62 of 110	6/20/2012	17	306-PGIADIEDLTLARSMV-322	1816	98.5%	79.5%
63 of 110	6/20/2012	17	311-IEDLTLARSMVVVRPS-327	1901	97.0%	80.8%
64 of 110	6/20/2012	17	316-LLARSMVVVRPSVASKV-332	1814	95.2%	79.4%
65 of 110	6/21/2012	17	321-MVVVRPSVASKVVLPI-337	1781	98.7%	71.9%
66 of 110	6/20/2012	17	326-PSVASKVVLPIYAKI-342	1787	97.4%	82.8%
67 of 110	6/11/2012	17	331-KVVLPIYAKIPLQGF-347	1888	98.8%	85.1%
68 of 110	6/11/2012	17	336-ISIYAKIPLQGFNVEEY-352	1986	96.9%	81.2%
69 of 110	6/21/2012	17	341-KIPQLGFNVEEYSVMGY-357	1974	96.6%	79.5%
70 of 110	6/21/2012	17	346-GFNVEEYSVMGYEAMAL-362	1912	97.2%	52.6%

Table 1						
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Purity by HPLC	Peptide Content
71 of 110	6/21/2012	17	351-EYSVMVGYEAMALYNMAT-367	1946	90.3%	31.1%
72 of 110	6/11/2012	17	356-GYEAMALYNMATPVSI-372	1845	99.0%	80.5%
73 of 110	6/11/2012	17	361-ALYNMATPVSIILRMGDD-377	1869	96.8%	81.0%
74 of 110	6/21/2012	17	366-ATPVSILRMGDDAKDKS-382	1806	99.0%	61.7%
75 of 110	6/11/2012	17	371-ILRMGDDAKDKSQLFFM-387	2016	98.4%	71.6%
76 of 110	6/8/2012	17	376-DDAKDKSQLFFMSCFGA-392	1912	96.7%	73.0%
77 of 110	6/21/2012	17	381-KSQLFFMSCFGAAYEDL-397	1957	67.5%	81.2%
78 of 110	6/21/2012	17	386-FMSCFGAAYEDLRVLSA-402	1880	58.0%	80.9%
79 of 110	6/11/2012	17	391-GAAYEDLRVLSALTGTE-407	1767	99.0%	82.8%
80 of 110	6/21/2012	17	396-DLRVLSALTGTEFKPRS-412	1891	99.0%	84.6%
81 of 110	6/21/2012	17	401-SALTGTEFKPRSALKCK-417	1839	91.6%	56.1%
82 of 110	6/11/2012	17	406-TEFKPRSALKCKGFHVP-422	1947	84.0%	72.6%
83 of 110	6/11/2012	17	411-RSALKCKGFHVP-427	1899	85.0%	67.8%
84 of 110	6/21/2012	17	416-CKGFHVP-432	1790	91.6%	72.9%
85 of 110	6/21/2012	17	421-VPAKEQVEGMGAALMSI-437	1733	99.5%	82.9%
86 of 110	6/21/2012	16	427-VEGMGAALMSIKLQFW-442	1782	94.7%	79.9%
87 of 110	6/11/2012	17	431-GAALMSIKLQFWAPMTR-447	1922	88.9%	76.6%
88 of 110	6/11/2012	17	436-SIKLQFWAPMTRSGGNE-452	1924	95.1%	80.8%
89 of 110	6/7/2012	17	441-FWAPMTRSGGNEVGGDG-457	1739	99.0%	76.8%
90 of 110	6/21/2012	17	446-TRSGGNEVGGDGGSGQI-462	1548	93.1%	77.2%
91 of 110	6/21/2012	17	451-NEVGGDGGSGQISCSPV-467	1565	92.2%	72.5%
92 of 110	6/11/2012	17	456-DGGSGQISCSPVFAVER-472	1711	93.3%	78.8%
93 of 110	6/21/2012	16	462-ISCSPVFAVERPIALS-477	1689	94.1%	80.5%
94 of 110	6/21/2012	17	466-PVFAVERPIALSKQAVR-482	1883	95.3%	73.7%
95 of 110	6/21/2012	17	471-ERPIALSKQAVRRMLSM-487	1987	89.4%	78.9%
96 of 110	6/21/2012	17	476-LSKQAVRRMLSMNIEGR-492	1990	93.4%	81.8%
97 of 110	6/11/2012	17	481-VRRMLSMNIEGRDADV-497	1992	99.6%	77.7%
98 of 110	6/11/2012	17	486-SMNIEGRDADVKG-502	1861	98.1%	74.3%
99 of 110	6/21/2012	17	491-GRDADVKG-507	1866	99.0%	72.5%
100 of 110	6/21/2012	17	496-VKG-512	1911	98.3%	79.0%
101 of 110	6/7/2012	17	501-LKMMNDSMAKKTSGNAF-517	1876	99.5%	79.7%
102 of 110	6/11/2012	17	506-DSMAKKTSGNAFIGK-522	1816	99.8%	63.8%
103 of 110	6/7/2012	17	511-KTSGNAFIGKMFQISD-527	1874	99.5%	82.9%
104 of 110	6/21/2012	17	516-AFIGKMFQISDKNKT-532	1972	98.6%	74.5%
105 of 110	6/7/2012	17	521-KMFQISDKNKTNPVEIP-537	1991	99.0%	73.3%
106 of 110	6/21/2012	17	526-SDKNKTNPVEIPIKQTI-542	1927	97.7%	71.1%
107 of 110	6/7/2012	17	531-TNPVEIPIKQTIPNFFF-547	2007	99.8%	80.4%
108 of 110	6/7/2012	17	536-IPIKQTIPNFFFGRDTA-552	1967	99.1%	83.2%
109 of 110	6/7/2012	17	541-TIPNFFFGRDTAEDYDD-557	2024	99.0%	85.8%
110 of 110	6/25/2012	15	546-FFGRDTAEDYDDL-560	1843	Crude	77.8%

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)
01 of 110	Expected			5.00			2.00		3.00		1.00	2.00			1.00	3.00			
	Actual			5.10			2.10		3.10		1.03	1.99			0.97	3.12			
02 of 110	Expected			3.00		2.00	2.00		4.00		1.00			1.00		4.00			
	Actual			2.98		1.99	2.00		3.88		1.02			1.09		3.92			
03 of 110	Expected			1.00		2.00	3.00		2.00		1.00			2.00	1.00	5.00			
	Actual			1.05		2.11	3.01		2.01		1.06			2.05	0.99	4.95			
04 of 110	Expected		1.00			2.00	2.00		2.00		1.00			3.00	1.00	5.00			
	Actual		1.01			2.07	2.02		2.04		1.03			3.17	0.97	5.02			
05 of 110	Expected	1.00	2.00				2.00		3.00					3.00	1.00	5.00			
	Actual	1.05	2.12				2.11		2.61					3.02	1.06	5.20			
06 of 110	Expected	2.00	2.00				1.00		2.00	1.00				4.00	2.00	3.00			
	Actual	2.13	2.04				1.01		1.86	1.07				4.10	2.02	3.01			
07 of 110	Expected	2.00	3.00	1.00					2.00	1.00	1.00			4.00	1.00	2.00			
	Actual	2.13	3.17	1.05					1.72	1.08	1.06			4.05	0.95	2.01			
08 of 110	Expected	2.00	2.00	2.00		1.00				1.00	1.00			4.00	2.00	2.00			
	Actual	2.03	2.03	2.04		0.99				1.04	1.04			4.08	1.98	2.02			
09 of 110	Expected	1.00	3.00	2.00		1.00					1.00			3.00	3.00	3.00			
	Actual	1.05	3.01	1.98		1.04					0.98			3.09	3.01	3.15			
10 of 110	Expected	1.00	2.00	3.00		2.00								2.00	3.00	3.00			1.00
	Actual	1.05	1.91	3.14		2.04								2.00	2.89	3.10			1.06
11 of 110	Expected	1.00	2.00	2.00		3.00	1.00				1.00			1.00	2.00	3.00			1.00
	Actual	1.03	1.92	2.09		3.03	1.04				1.04			0.96	1.99	2.95			1.07
12 of 110	Expected		1.00	2.00		3.00	1.00				3.00			1.00	2.00	3.00			1.00
	Actual		1.02	1.97		2.95	1.01				3.08			1.03	1.90	2.89			1.03
13 of 110	Expected		1.00	1.00		3.00	1.00		1.00		5.00			1.00		3.00			1.00
	Actual		0.99	0.99		3.07	1.00		1.02		5.21			0.94		3.10			1.01
14 of 110	Expected			1.00		3.00			1.00		4.00	1.00		1.00	1.00	3.00		1.00	1.00
	Actual			1.08		2.98			1.05		4.05	0.92		1.00	0.97	2.81		1.08	1.10
15 of 110	Expected			1.00		1.00	1.00		1.00	1.00	3.00	1.00		1.00	1.00	2.00		1.00	3.00
	Actual			1.01		1.05	1.05		0.98	1.06	3.09	0.98		1.01	1.04	2.06		1.00	2.80
16 of 110	Expected			2.00		2.00	1.00			1.00	3.00	1.00	1.00		1.00			2.00	3.00
	Actual			1.97		1.95	1.02			1.01	2.98	1.05	1.08		0.95			1.98	2.69
17 of 110	Expected	1.00		2.00		2.00	1.00			1.00	2.00	3.00	1.00					1.00	3.00
	Actual	1.00		2.00		1.92	1.02			1.02	2.00	2.97	1.09					1.01	2.70
18 of 110	Expected	1.00		4.00		2.00	2.00			2.00	1.00	2.00	1.00					1.00	1.00
	Actual	1.03		3.83		1.91	2.01			2.02	1.02	1.96	1.01					1.00	1.03
19 of 110	Expected	1.00	1.00	5.00		2.00	1.00			2.00	1.00	3.00							1.00
	Actual	1.04	0.98	4.95		1.95	1.04			2.02	0.93	3.05							1.03
20 of 110	Expected	2.00	1.00	5.00		2.00	1.00	1.00	1.00	2.00	1.00	1.00							
	Actual	2.03	1.02	4.99		1.95	0.99	1.00	0.99	2.03	1.00	1.00							
21 of 110	Expected	2.00	2.00	4.00		3.00		1.00	2.00	1.00		1.00							1.00
	Actual	2.05	2.02	3.97		2.91		0.98	1.98	1.03		0.96							1.04
22 of 110	Expected	4.00	1.00	2.00		2.00		1.00	2.00	3.00						1.00			1.00
	Actual	4.12	0.98	1.95		1.94		0.97	1.96	3.08						1.07			1.04
23 of 110	Expected	4.00	1.00	2.00		1.00		1.00	1.00	2.00	2.00					2.00			1.00
	Actual	4.03	0.97	2.00		0.99		1.03	0.98	2.03	2.04					2.01			1.02
24 of 110	Expected	2.00	1.00	2.00		2.00			1.00	2.00	4.00		1.00			2.00			
	Actual	2.02	1.00	2.02		1.94			0.99	2.04	4.07		1.05			1.94			
25 of 110	Expected	2.00	1.00	4.00		2.00					5.00		1.00			2.00			
	Actual	2.03	0.98	4.00		1.95					5.03		1.09			1.96			

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 110	Expected	1.00	1.00	2.00		3.00	1.00				6.00		1.00			1.00			1.00
	Actual	1.04	1.03	2.02		2.86	0.97				6.01		1.06			0.96			1.03
27 of 110	Expected	1.00	1.00	3.00		3.00	1.00	1.00	1.00		5.00								1.00
	Actual	1.00	0.97	2.89		2.90	1.02	1.08	1.00		4.93								1.01
28 of 110	Expected		1.00	3.00		3.00	3.00	1.00	1.00		3.00					1.00			1.00
	Actual		1.00	3.07		3.00	2.92	1.04	1.00		3.03					0.99			1.02
29 of 110	Expected			2.00		2.00	3.00	1.00	1.00		3.00	1.00	1.00			2.00		1.00	
	Actual			1.97		1.91	3.00	1.04	1.01		3.02	1.00	1.04			1.94		1.05	
30 of 110	Expected		1.00	4.00			2.00	1.00			3.00	1.00	1.00			2.00		1.00	1.00
	Actual		1.01	3.88			2.01	0.98			3.02	0.98	1.03			2.03		1.03	1.03
31 of 110	Expected		1.00	2.00			2.00		1.00		2.00	1.00	2.00		1.00	2.00		2.00	1.00
	Actual		0.99	2.07			1.96		1.00		2.06	1.01	2.01		1.05	2.06		1.97	1.03
32 of 110	Expected		2.00	2.00					3.00		2.00	1.00	1.00	1.00	1.00	2.00		1.00	1.00
	Actual		1.99	2.03					3.03		2.11	1.03	1.04	0.94	0.97	2.02		1.02	1.05
33 of 110	Expected		1.00	1.00		2.00			3.00	1.00	2.00		2.00	1.00	1.00	2.00		1.00	
	Actual		1.02	1.00		2.01			2.91	1.04	2.06		2.05	0.98	0.95	1.95		1.00	
34 of 110	Expected		1.00			2.00			2.00	1.00	2.00	1.00	2.00	1.00	1.00	2.00		1.00	1.00
	Actual		1.03			2.04			1.99	1.05	2.09	0.93	2.08	0.97	0.98	2.01		1.03	1.07
35 of 110	Expected					2.00	1.00		1.00	1.00	3.00	2.00	1.00			4.00		1.00	1.00
	Actual					1.94	1.01		0.99	1.02	3.05	2.00	1.02			3.86		1.01	1.03
36 of 110	Expected			1.00		2.00	2.00				2.00	2.00	1.00		2.00	3.00		1.00	1.00
	Actual			1.04		1.97	2.03				2.06	2.04	1.03		1.94	3.03		1.01	1.03
37 of 110	Expected			2.00			3.00	1.00	1.00	1.00	1.00	2.00	1.00		2.00	2.00		1.00	
	Actual			2.03			3.14	1.00	1.03	1.08	1.03	1.91	1.06		2.08	1.84		0.97	
38 of 110	Expected			2.00			4.00	2.00	2.00	1.00		2.00	1.00		3.00				
	Actual			2.00			4.00	2.12	2.00	1.02		2.03	1.03		2.87				
39 of 110	Expected			3.00		1.00	2.00	2.00	2.00	1.00		2.00	1.00		2.00				1.00
	Actual			2.96		0.99	1.99	1.94	1.92	1.02		2.01	1.05		1.90				1.03
40 of 110	Expected		1.00	2.00	1.00	2.00	1.00	2.00	2.00			2.00	1.00		2.00				1.00
	Actual		1.05	2.04	0.00 ^a	1.98	1.02	1.99	1.92			1.94	1.06		1.90				1.07
41 of 110	Expected	1.00	2.00	2.00	1.00	2.00		1.00		1.00	2.00	1.00	1.00		2.00				1.00
	Actual	0.98	2.01	1.98	0.00 ^a	1.92		0.97		1.01	1.99	1.01	1.07		1.88				1.03
42 of 110	Expected	1.00	2.00	2.00	1.00	1.00	1.00			2.00	2.00		1.00	1.00	1.00				2.00
	Actual	1.03	2.03	2.01	0.00 ^a	1.06	1.03			2.07	2.09		0.98	0.91	1.00				2.05
43 of 110	Expected	1.00	2.00	1.00			1.00		1.00	3.00	2.00			1.00	3.00	1.00			1.00
	Actual	1.04	1.95	1.02			1.01		1.00	3.04	2.04			1.01	2.99	1.03			1.03
44 of 110	Expected	1.00	1.00	1.00			2.00		1.00	2.00	1.00		1.00	1.00	3.00	2.00			1.00
	Actual	1.04	0.96	0.98			1.99		1.02	2.03	1.00		1.05	1.06	2.93	2.03			1.02
45 of 110	Expected	1.00	2.00	1.00			1.00		2.00	1.00			1.00	2.00	4.00	2.00			
	Actual	1.07	1.94	0.93			1.06		2.02	1.04			1.06	2.07	3.85	1.98			
46 of 110	Expected	2.00	2.00				3.00		1.00				1.00	1.00	3.00	3.00			1.00
	Actual	2.00	1.99				2.99		1.02				1.05	1.05	3.04	2.88			1.04
47 of 110	Expected	2.00	2.00				4.00		2.00		1.00			1.00	2.00	2.00			1.00
	Actual	2.13	1.98				4.16		1.98		1.07			0.96	2.01	1.97			1.08
48 of 110	Expected	3.00	1.00				5.00		1.00	1.00	1.00				1.00	2.00			2.00
	Actual	3.08	0.99				5.05		0.99	1.05	1.04				1.04	2.00			2.06
49 of 110	Expected	3.00	1.00			1.00	4.00		2.00	1.00	1.00		1.00			1.00			2.00
	Actual	3.08	1.01			0.98	3.97		1.93	1.03	1.00		1.02			0.99			2.06
50 of 110	Expected	3.00	2.00			1.00	4.00		2.00	1.00		1.00	1.00			1.00			1.00
	Actual	3.10	1.95			0.97	4.01		1.99	1.03		1.01	1.04			0.96			1.04

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 110	Expected	4.00	3.00	1.00		1.00	2.00		2.00	1.00		1.00	1.00						1.00
	Actual	4.07	3.03	0.98		0.94	2.01		1.95	1.02		1.00	1.01						1.03
52 of 110	Expected	2.00	4.00	2.00			2.00		2.00	2.00	1.00	1.00	1.00						
	Actual	2.04	3.94	1.99			1.98		1.92	2.04	1.03	0.97	1.03						
53 of 110	Expected	4.00	2.00	2.00			1.00		1.00	2.00	2.00	1.00				1.00		1.00	
	Actual	4.04	2.02	2.01			1.01		0.98	2.06	2.02	1.01				0.97		1.02	
54 of 110	Expected	2.00	1.00	1.00		1.00	1.00		2.00	4.00	3.00					1.00		1.00	
	Actual	2.05	1.01	0.99		0.95	1.01		1.96	4.14	3.06					0.98		1.04	
55 of 110	Expected	2.00		2.00		1.00			2.00	3.00	5.00					1.00		1.00	
	Actual	2.07		2.02		0.98			1.98	3.08	5.09					1.01		0.98	
56 of 110	Expected	2.00		2.00	1.00	2.00			1.00	3.00	3.00			1.00	1.00				1.00
	Actual	2.01		2.02	0.00 ^a	1.94			0.98	3.10	3.05			0.95	0.96				1.03
57 of 110	Expected	2.00		2.00	1.00	2.00				4.00	3.00			1.00	1.00				1.00
	Actual	2.04		2.08	0.00 ^a	2.01				4.23	3.12			0.97	0.99				1.01
58 of 110	Expected	2.00		2.00	1.00	3.00	1.00		1.00	1.00	2.00			1.00	1.00				2.00
	Actual	2.10		2.10	0.00 ^a	3.08	0.96		0.85	1.07	2.06			0.96	0.94				2.00
59 of 110	Expected	1.00	1.00	2.00		3.00	2.00		1.00	1.00	1.00			2.00	1.00				2.00
	Actual	0.98	1.03	2.04		2.88	2.03		0.78	1.04	1.03			2.00	0.94				1.87
60 of 110	Expected	1.00	1.00	3.00		2.00	2.00		3.00	1.00				1.00	1.00				2.00
	Actual	1.02	1.03	3.06		2.02	2.06		2.80	1.03				1.00	0.96				1.86
61 of 110	Expected	1.00	1.00	3.00		1.00	2.00		3.00	3.00				1.00	1.00	1.00			
	Actual	1.02	1.02	3.02		1.03	2.03		2.97	3.13				1.03	0.96	1.03			
62 of 110	Expected	2.00	1.00	2.00		1.00	1.00		2.00	3.00		1.00		1.00	1.00	1.00			1.00
	Actual	2.04	0.99	1.98		1.01	0.99		1.97	3.07		1.02		1.04	0.99	1.03			1.05
63 of 110	Expected	1.00	2.00	1.00		1.00			1.00	3.00		1.00		1.00	2.00	1.00			3.00
	Actual	1.03	2.04	1.01		1.03			0.99	3.13		1.04		1.03	2.00	1.02			2.74
64 of 110	Expected	2.00	2.00							2.00	1.00	1.00		1.00	3.00				5.00
	Actual	2.08	2.11							2.14	0.91	1.07		0.98	3.01				4.80
65 of 110	Expected	1.00	1.00						1.00	1.00	1.00	1.00		2.00	3.00				6.00
	Actual	1.04	1.01						1.02	1.07	1.01	1.06		1.89	2.94				5.78
66 of 110	Expected	2.00							3.00	1.00	2.00			2.00	3.00			1.00	3.00
	Actual	2.07							3.00	1.04	2.09			1.96	3.05			1.06	2.75
67 of 110	Expected	1.00				1.00	1.00		3.00	2.00	2.00		1.00	2.00	1.00			1.00	2.00
	Actual	1.01				0.97	1.02		2.96	2.09	2.06		1.01	1.99	0.96			1.05	1.77
68 of 110	Expected	1.00		1.00		3.00	1.00		3.00	1.00	1.00		1.00	1.00	1.00			2.00	1.00
	Actual	0.94		1.00		2.96	1.01		2.84	1.04	0.99		1.05	0.96	0.91			2.05	1.06
69 of 110	Expected			1.00		3.00	2.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00			2.00	2.00
	Actual			1.03		3.05	2.06		1.00	1.05	0.99	0.93	1.05	0.92	0.96			2.08	2.12
70 of 110	Expected	2.00		1.00		3.00	2.00			1.00		2.00	1.00		1.00			2.00	2.00
	Actual	2.07		0.98		2.95	1.99			1.05		2.03	0.99		0.97			2.05	2.07
71 of 110	Expected	3.00		1.00		2.00	1.00			1.00		3.00			1.00	1.00		3.00	1.00
	Actual	3.05		1.04		1.98	1.04			1.02		2.78			1.00	1.06		3.00	1.04
72 of 110	Expected	3.00		1.00		1.00	1.00		1.00	2.00		2.00		1.00	1.00	1.00		2.00	1.00
	Actual	3.10		1.02		1.02	0.96		0.99	2.08		2.02		1.02	0.99	1.02		2.06	1.04
73 of 110	Expected	2.00	1.00	3.00			1.00		1.00	2.00		2.00		1.00	1.00	1.00		1.00	1.00
	Actual	2.03	1.05	3.09			1.04		1.01	2.06		2.09		0.93	1.07	0.90		1.00	1.07
74 of 110	Expected	2.00	1.00	3.00			1.00		1.00	1.00	2.00	1.00		1.00	2.00	1.00			1.00
	Actual	2.03	1.02	3.06			1.01		0.99	1.04	2.06	1.01		0.93	2.03	1.00			1.05
75 of 110	Expected	1.00	1.00	3.00		1.00	1.00		1.00	2.00	2.00	2.00	2.00		1.00				
	Actual	1.02	0.99	3.05		1.00	1.01		0.95	2.07	2.07	2.06	2.09		0.98				

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 110	Expected	2.00		3.00	1.00	1.00	1.00			1.00	2.00	1.00	3.00		2.00				
	Actual	1.89		3.00	0.00 ^a	0.95	1.05			1.02	2.04	1.01	3.03		1.63				
77 of 110	Expected	2.00		1.00	1.00	2.00	1.00			2.00	1.00	1.00	3.00		2.00			1.00	
	Actual	2.08		1.01	0.00 ^a	1.94	1.04			1.97	1.02	1.02	2.84		2.05			1.03	
78 of 110	Expected	3.00	1.00	1.00	1.00	1.00	1.00			2.00		1.00	2.00		2.00			1.00	1.00
	Actual	3.00	1.01	1.01	0.00 ^a	0.98	1.01			2.04		1.01	2.00		2.02			1.02	1.02
79 of 110	Expected	3.00	1.00	1.00		2.00	2.00			3.00					1.00	2.00		1.00	1.00
	Actual	3.09	1.01	1.00		1.95	2.04			3.12					1.02	2.04		1.03	1.03
80 of 110	Expected	1.00	2.00	1.00		1.00	1.00			3.00	1.00		1.00	1.00	2.00	2.00			1.00
	Actual	1.01	2.01	1.00		1.01	1.02			3.07	1.02		1.04	1.01	1.92	2.02			1.02
81 of 110	Expected	2.00	1.00		1.00	1.00	1.00			2.00	3.00		1.00	1.00	2.00	2.00			
	Actual	2.02	1.02		0.00 ^a	1.04	1.01			2.09	3.09		0.99	1.00	1.98	2.02			
82 of 110	Expected	1.00	1.00		1.00	1.00	1.00	1.00		1.00	3.00		2.00	2.00	1.00	1.00			1.00
	Actual	1.04	0.96		0.00 ^a	1.03	1.05	1.00		1.04	3.01		2.03	2.00	1.00	0.95			1.04
83 of 110	Expected	2.00	1.00		1.00	2.00	1.00	1.00		1.00	3.00		1.00	1.00	1.00				2.00
	Actual	2.06	1.01		0.00 ^a	1.91	1.05	1.04		1.06	3.08		1.09	0.91	0.94				1.94
84 of 110	Expected	2.00			1.00	3.00	3.00	1.00				2.00	1.00	1.00					2.00
	Actual	1.91			0.00 ^a	2.98	2.94	1.02				2.07	1.06	0.96	0.95				2.08
85 of 110	Expected	3.00				3.00	2.00		1.00	1.00	1.00	2.00		1.00	1.00				2.00
	Actual	3.11				2.94	2.08		0.99	1.03	1.02	2.05		0.97	0.95				2.06
86 of 110	Expected	2.00				2.00	2.00		1.00	2.00	1.00	2.00	1.00		1.00		1.00		1.00
	Actual	2.03				2.00	2.01		0.98	2.04	1.04	1.97	1.03		1.00		0.00 ^b		1.02
87 of 110	Expected	3.00	1.00			1.00	1.00		1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00		
	Actual	3.00	1.03			1.03	1.00		0.98	2.04	1.06	2.01	1.09	0.99	0.96	0.98	0.00 ^b		
88 of 110	Expected	1.00	1.00	1.00		2.00	2.00		1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00		
	Actual	1.06	1.01	1.05		2.01	2.13		0.93	0.98	0.95	1.00	1.02	0.98	2.08	1.06	0.00 ^b		
89 of 110	Expected	1.00	1.00	2.00		1.00	5.00					1.00	1.00	1.00	1.00	1.00	1.00		1.00
	Actual	1.02	1.03	2.00		1.01	4.97					1.03	1.04	1.04	0.99	1.01	0.00 ^b		1.02
90 of 110	Expected		1.00	2.00		2.00	7.00		1.00						2.00	1.00			1.00
	Actual		1.03	2.05		2.03	7.07		1.04						1.97	0.99			1.04
91 of 110	Expected			2.00	1.00	2.00	5.00		1.00					1.00	3.00				2.00
	Actual			1.95	0.00 ^a	1.92	4.99		1.00					1.07	2.69				1.99
92 of 110	Expected	1.00	1.00	1.00	1.00	2.00	3.00		1.00				1.00	1.00	3.00				2.00
	Actual	1.03	1.01	0.99	0.00 ^a	2.01	3.04		0.99				1.08	0.92	3.07				2.08
93 of 110	Expected	2.00	1.00		1.00	1.00			2.00	1.00			1.00	2.00	3.00				2.00
	Actual	2.08	1.04		0.00 ^a	0.97			1.95	1.03			1.04	2.01	2.88				2.05
94 of 110	Expected	3.00	2.00			2.00			1.00	1.00	1.00		1.00	2.00	1.00				3.00
	Actual	3.11	2.01			2.01			1.00	1.04	1.04		0.98	2.00	0.97				3.06
95 of 110	Expected	2.00	3.00			2.00			1.00	2.00	1.00	2.00		1.00	2.00				1.00
	Actual	2.04	3.05			2.01			0.95	2.07	1.00	2.11		0.96	1.97				1.06
96 of 110	Expected	1.00	3.00	1.00		2.00	1.00		1.00	2.00	1.00	2.00			2.00				1.00
	Actual	0.97	3.07	1.01		1.95	0.95		0.99	2.13	1.04	2.14			1.88				1.06
97 of 110	Expected	1.00	3.00	3.00		1.00	1.00		1.00	1.00	1.00	2.00			1.00				2.00
	Actual	1.03	3.02	3.03		1.00	1.03		1.00	1.04	1.03	1.93			0.96				2.03
98 of 110	Expected	1.00	1.00	4.00		1.00	2.00		1.00	2.00	2.00	1.00			1.00				1.00
	Actual	1.04	1.00	3.98		0.97	2.05		0.97	2.06	2.06	0.92			0.92				1.02
99 of 110	Expected	1.00	1.00	5.00			2.00			2.00	2.00	2.00			1.00				1.00
	Actual	1.02	0.99	5.03			2.08			2.06	2.02	2.03			0.94				1.02
100 of 110	Expected	1.00		3.00			1.00			2.00	4.00	3.00			1.00	1.00			1.00
	Actual	1.03		2.97			1.03			2.13	4.07	2.81			0.96	1.04			1.07

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)
101 of 110	Expected	2.00		3.00			1.00			1.00	3.00	3.00	1.00		2.00	1.00			
	Actual	2.06		3.05			1.02			1.02	3.06	3.03	1.04		2.03	1.01			
102 of 110	Expected	2.00		2.00			2.00		1.00		4.00	2.00	1.00		2.00	1.00			
	Actual	2.03		2.02			2.05		0.98		3.97	1.98	1.07		2.07	1.02			
103 of 110	Expected	1.00		2.00		1.00	2.00		2.00		3.00	1.00	2.00		2.00	1.00			
	Actual	1.07		2.01		1.00	2.03		2.01		3.13	1.03	2.05		1.98	1.00			
104 of 110	Expected	1.00		3.00		1.00	1.00		2.00		4.00	1.00	2.00		1.00	1.00			
	Actual	1.01		3.07		1.00	1.04		1.99		4.11	1.03	2.01		0.99	1.01			
105 of 110	Expected			3.00		2.00			2.00		3.00	1.00	1.00	2.00	1.00	1.00			1.00
	Actual			3.08		2.06			1.98		3.08	1.01	0.98	2.08	0.99	1.02			1.06
106 of 110	Expected			3.00		2.00			3.00		3.00			2.00	1.00	2.00			1.00
	Actual			3.08		2.05			3.01		3.09			2.06	0.96	2.03			1.05
107 of 110	Expected			2.00		2.00			3.00		1.00		3.00	3.00		2.00			1.00
	Actual			2.01		1.94			2.92		1.02		3.19	2.97		1.97			1.03
108 of 110	Expected	1.00	1.00	2.00		1.00	1.00		3.00		1.00		3.00	2.00		2.00			
	Actual	1.01	1.03	2.03		0.96	1.02		2.94		1.03		3.12	1.98		1.97			
109 of 110	Expected	1.00	1.00	5.00		1.00	1.00		1.00				3.00	1.00		2.00			1.00
	Actual	1.01	1.01	4.96		1.02	1.00		0.98				3.07	0.97		2.02			1.03
110 of 110	Expected	1.00	1.00	5.00		1.00	1.00			1.00			2.00			1.00			2.00
	Actual	1.02	1.03	4.97		1.00	0.98			1.04			1.94			0.98			2.07

^aCys was completely destroyed during hydrolysis

^bTrp was completely destroyed during hydrolysis

Date: 07 AUG 2012

Signature: *Dorothy C. Young*

Title: Technical Manager, BEI Authentication or designee

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