

## Peptide Array, Dengue Virus Type 1 (DEN-1), Singapore/S275/1990, NS5 Protein

### Catalog No. NR-4203

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

**Product Description:** The 155-peptide array spans the NS5 protein of Dengue virus type 1, Singapore/S275/1990 (GenPept: P33478). Peptides are 12- to 17-mers, with 11 or 12 amino acid overlaps.

**Lot: 337101 to 337255**

The following information applies to all peptides:

- Appearance Off-white lyophilized powder (Peptide 119)  
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 <sup>a</sup>	Peptide Content <sup>b</sup>
1 of 155	12/04/06	17	1 GTGAKGKHWERNKGDRL 17	1910.1	93.7%	69.1%
2 of 155	12/05/06	16	7 KHWERNKGDRLNQLSK 22	2009.3	94.8%	73.6%
3 of 155	12/04/06	17	12 NGKDRLNQLSKSEFNTY 28	2014.2	90.6%	75.4%
4 of 155	12/05/06	17	18 NQLSKSEFNTYKRSGIM 34	2003.3	94.3%	75.7%
5 of 155	12/15/06	16	23 SEFNTYKRSGIMEVD 38	1932.2	84.2%	75.4%
6 of 155	12/05/06	17	28 YKRSGIMEVD RSEAKEG 44	1955.2	94.4%	77.4%
7 of 155	12/08/06	17	34 MEVD RSEAKEGLKRGET 50	1935.2	91.9%	70.0%
8 of 155	12/07/06	17	39 SEAKEGLKRGETTKHAV 55	1841.1	91.3%	65.2%
9 of 155	12/04/06	17	45 LKRGETTKHAVSRGTAK 61	1840.1	88.1%	87.9%
10 of 155	12/08/06	17	51 TKHAVSRGTAKLRWFVE 67	1986.3	97.4%	75.0%
11 of 155	12/18/06	16	57 RGTAKLRWFVERNLVK 72	1973.4	96.2%	71.0%
12 of 155	12/08/06	17	62 LRWFVERNLVKPEGKVI 78	2083.5	95.9%	73.4%
13 of 155	12/13/06	17	68 RNLVKPEGKVIDLGCGR 84	1854.2	85.2%	65.4%
14 of 155	12/11/06	17	73 PEGKVIDLGCGRGGWSY 89	1794.0	92.3%	76.0%
15 of 155	12/15/06	17	79 DLGCGRGGWSY CAGLK 95	1806.0	83.2%	74.6%
16 of 155	12/15/06	17	85 GGWSY CAGLKKVTEVK 101	1889.2	97.7%	77.0%
17 of 155	12/09/06	17	91 CAGLKKVTEVKGYTKGG 107	1739.1	89.5%	66.1%
18 of 155	12/11/06	16	97 VTEVKGYTKGGPGHEE 112	1687.8	93.6%	77.5%
19 of 155	12/11/06	17	102 GYTKGGPGHEEPIPMAT 118	1742.0	96.8%	76.0%
20 of 155	12/11/06	17	108 PGHEEPIPMATYGNLV 124	1911.2	95.3%	77.6%
21 of 155	12/18/06	17	114 IPMATYGNLVKLYSGK 130	1941.3	93.9%	77.0%
22 of 155	12/13/06	16	120 GWNLVKLYSGKDVFFT 135	1874.2	85.3%	78.4%
23 of 155	12/06/06	17	125 KLYSGKDVFFTPEKCD 141	1974.3	88.0%	75.6%
24 of 155	12/07/06	17	131 DVFFTPEKCDTLLCDI 147	1956.3	94.0%	83.5%

Table 1						
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
25 of 155	12/11/06	17	137 PEKCDTLLCDIGESSPN 153	1821.0	94.9%	89.4%
26 of 155	12/04/06	17	143 LLCDIGESSPNPTIEEG 159	1773.9	95.2%	79.3%
27 of 155	12/04/06	17	148 GESSPNPTIEEGRTLRLV 164	1842.0	87.8%	78.0%
28 of 155	12/02/06	16	154 PTIEEGRTLRLVKMVE 169	1871.2	85.8%	63.7%
29 of 155	12/06/06	17	159 GRTLRLVKMVEPWLRGN 175	2025.5	91.7%	70.4%
30 of 155	12/05/06	17	165 LKMVEPWLRGNQFCIKI 181	2075.6	92.1%	77.3%
31 of 155	12/08/06	16	171 WLRGNQFCIKILNPYM 186	1996.4	92.9%	84.5%
32 of 155	12/18/06	17	175 NQFCIKILNPYMPSVVE 191	1995.4	88.9%	86.8%
33 of 155	12/11/06	17	181 ILNPYMPSVETLEQMQ 197	1992.4	84.3%	83.7%
34 of 155	12/11/06	17	187 PSVETLEQMQRKHGGM 203	1927.2	94.3%	79.5%
35 of 155	12/11/06	17	193 LEQMQRKHGGMLVRNPL 209	2007.4	97.0%	75.7%
36 of 155	12/14/06	17	199 KHGGMLVRNPLSRNSTH 215	1904.2	97.4%	65.8%
37 of 155	12/11/06	16	205 VRNPLSRNSTHEMYWV 220	1989.3	96.4%	79.5%
38 of 155	12/19/06	17	210 SRNSTHEMYWVSCGTGN 226	1929.1	82.8%	76.7%
39 of 155	12/14/06	17	215 HEMYWVSCGTGNIVSAV 231	1853.1	54.4%	75.1%
40 of 155	12/15/06	17	221 SCGTGNIVSAVNMTSRM 237	1728.0	87.2%	86.9%
41 of 155	12/18/06	17	227 IVSAVNMTSRMLLNRF 243	1953.4	81.7%	76.3%
42 of 155	12/15/06	16	233 MTSRMLLNRFMAHRK 248	1993.5	92.5%	70.5%
43 of 155	12/18/06	17	238 LLNRFMAHRKPTYERD 254	2148.5	92.4%	79.4%
44 of 155	12/14/06	17	244 MAHRKPTYERDVLGAG 260	1916.2	88.8%	72.7%
45 of 155	12/14/06	17	250 TYERDVLGAGTRHVAV 266	1859.0	88.6%	79.3%
46 of 155	12/13/06	17	256 DLGAGTRHVAVEPEVAN 272	1734.9	87.0%	78.5%
47 of 155	12/18/06	17	262 RHVAVEPEVANLDIIGQ 278	1860.1	89.5%	83.0%
48 of 155	12/18/06	17	268 PEVANLDIIGQRIENIK 284	1922.2	91.5%	83.1%
49 of 155	12/18/06	17	274 DIIGQRIENIKHEHKST 290	2018.3	89.7%	79.8%
50 of 155	12/18/06	17	280 IENIKHEHKSTWHYDED 296	2181.3	86.4%	66.2%
51 of 155	12/18/06	17	285 HEHKSTWHYDEDNPYKT 301	2187.3	84.5%	74.2%
52 of 155	12/11/06	16	291 WHYDEDNPYKTWAYHG 306	2082.2	97.8%	81.6%
53 of 155	12/18/06	16	296 DNPYKTWAYHGSYEVK 311	1958.1	89.6%	74.8%
54 of 155	12/13/06	16	301 TWAYHGSYEVKPSGSA 316	1739.9	96.7%	76.0%
55 of 155	12/13/06	17	306 GSYEVKPSGSASSMVNG 322	1656.8	81.6%	58.8%
56 of 155	12/22/06	17	312 PSGSASSMVNGVVKLLT 328	1646.9	22.2%	78.3%
57 of 155	12/14/06	17	318 SMVNGVVKLLTKPWDAI 334	1871.3	90.6%	73.1%
58 of 155	12/14/06	17	324 VKLLTKPWDAIPMVTQI 340	1953.4	92.3%	82.9%
59 of 155	12/11/06	17	330 PWD AIPMVTQIAMDTT 346	1891.2	93.9%	87.3%
60 of 155	12/15/06	17	336 MVTQIAMDTTTPFGQQR 352	1925.2	91.4%	87.2%
61 of 155	12/09/06	17	342 MDTTTPFGQQRVFKVK 358	2012.3	96.7%	82.6%
62 of 155	12/18/06	17	348 FGQQRVFKVKVDTRTPK 364	2064.4	74.8%	77.3%
63 of 155	12/04/06	17	354 FKEKVDTRTPKAKRGT 370	1933.3	93.8%	67.2%
64 of 155	12/13/06	17	360 TRTPKAKRGT AQIMEVT 376	1888.2	87.1%	80.5%
65 of 155	12/09/06	17	366 KRGT AQIMEVTARWLWG 382	2003.4	88.0%	75.7%
66 of 155	12/18/06	17	372 IMEVTARWLWGF LSRNK 388	2107.5	86.3%	78.9%
67 of 155	12/12/06	17	378 RWLWGF LSRNK KPRICT 394	2161.6	97.7%	66.5%
68 of 155	12/15/06	17	384 LSRNK KPRICTREEFTR 400	2134.5	90.9%	64.2%
69 of 155	12/09/06	17	390 PRICTREEFTRK VRSNA 406	2063.4	89.9%	67.7%
70 of 155	12/11/06	17	395 REEFTRK VRSNA AIGAV 411	1904.2	95.9%	73.1%
71 of 155	12/18/06	17	401 K VRSNA AIGAV FVDENQ 417	1818.0	84.2%	76.2%
72 of 155	12/06/06	17	407 AIGAV FVDENQ WNSAKE 423	1878.0	96.4%	77.2%
73 of 155	12/18/06	17	413 VDENQ WNSAKE AVE DER 429	2019.1	91.5%	78.5%

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Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
74 of 155	12/06/06	17	419 NSAKEAVEDERFWDLVH 435	2045.2	92.9%	71.4%
75 of 155	12/04/06	17	425 VEDERFWDLVHRERELH 441	2265.5	97.4%	74.3%
76 of 155	12/01/06	17	431 WDLVHRERELHKQKCA 447	2105.4	95.7%	73.8%
77 of 155	12/14/06	17	436 RERELHKQKCATCVYN 452	2035.3	81.5%	62.7%
78 of 155	12/07/06	17	442 KQKCATCVYNMMGKRE 458	1947.4	92.6%	71.5%
79 of 155	11/30/06	17	448 TCVYNMMGKREKLGFE 464	2034.5	87.6%	79.0%
80 of 155	12/04/06	16	454 MGKREKLGFEFGKAKG 469	1764.1	95.7%	68.3%
81 of 155	12/02/06	17	459 KKLGEFGKAKGSRAIWY 475	1939.3	96.0%	82.5%
82 of 155	11/30/06	17	465 GKAKGSRAIWMWLGAR 481	1951.3	95.9%	75.2%
83 of 155	12/07/06	17	471 RAIWYMWLGARFLEFEA 487	2159.6	85.9%	79.9%
84 of 155	12/07/06	17	477 WLGARFLEFEALGFMNE 493	2030.4	82.3%	87.3%
85 of 155	11/30/06	17	483 LEFEALGFMNEDHWFSR 499	2128.4	89.6%	72.3%
86 of 155	12/05/06	17	489 GFMNEDHWFSRENSLSG 505	2013.2	97.2%	70.3%
87 of 155	12/04/06	17	495 HWFSRENSLSGVEGEG 511	1904.0	96.4%	73.2%
88 of 155	11/30/06	17	501 NSLSGVEGEGHLKGLYI 517	1773.0	91.9%	70.1%
89 of 155	12/04/06	16	506 VEGEGHLKGLYLIRDI 521	1812.1	95.8%	78.6%
90 of 155	12/04/06	17	511 LHKGLYLIRDISKIPGG 527	1880.3	98.0%	76.6%
91 of 155	12/08/06	17	517 ILRDISKIPGGNMYADD 533	1878.2	93.5%	67.7%
92 of 155	12/06/06	17	523 KIPGGNMYADDTAGWDT 539	1812.0	87.8%	72.4%
93 of 155	12/09/06	17	529 MYADDTAGWDTRITEDD 545	1975.0	93.5%	83.7%
94 of 155	12/08/06	17	535 AGWDTRITEDDLQNEAK 551	1962.1	96.1%	90.2%
95 of 155	12/08/06	17	541 ITEDDLQNEAKITDIME 557	1978.2	96.7%	88.4%
96 of 155	12/08/06	17	546 LQNEAKITDIMEPEHAL 562	1952.2	92.9%	68.5%
97 of 155	12/15/06	17	552 ITDIMEPEHALLATSIF 568	1901.2	89.6%	84.3%
98 of 155	12/18/06	17	558 PEHALLATSIFKLYQN 574	1946.2	49.8%	71.0%
99 of 155	12/11/06	17	564 ATSIFKLYQNKVVRVQ 580	1995.4	92.9%	74.9%
100 of 155	12/11/06	17	570 LTYQNKVVRVQRPAKNG 586	1971.3	92.4%	76.5%
101 of 155	12/11/06	17	576 VVRVQRPAKNGTVMVI 592	1882.3	98.0%	78.5%
102 of 155	12/18/06	17	582 PAKNGTVMVISRRDQR 598	1943.2	88.5%	66.4%
103 of 155	12/09/06	17	588 VMDVISRRDQRGSGQVG 604	1860.1	92.9%	65.4%
104 of 155	12/14/06	17	594 RRDQRGSGQVGTYLNT 610	1865.0	86.8%	77.6%
105 of 155	12/12/06	17	600 SGQVGTYLNTFTNMEA 616	1790.0	91.1%	87.7%
106 of 155	12/14/06	17	606 YGLNTFTNMEAQLIRQM 622	2030.4	85.3%	84.7%
107 of 155	12/14/06	17	612 TNMEAQLIRQMESEGIF 628	1997.3	92.8%	81.5%
108 of 155	12/15/06	17	618 LIRQMESEGIFSPSELE 634	1965.2	96.5%	74.3%
109 of 155	12/15/06	17	624 SEGIFSPSELETPNLA 640	1820.0	94.5%	87.5%
110 of 155	12/14/06	17	630 PSELETPNLAERVLDWL 646	1982.2	97.8%	80.8%
111 of 155	12/05/06	17	636 PNLAERVLDWLEKYGVE 652	2031.3	92.8%	77.4%
112 of 155	12/09/06	17	642 VLDWLEKYGVERLKRMA 658	2106.5	95.9%	79.5%
113 of 155	12/14/06	16	648 KYGVERLKRMAISGDD 663	1838.1	87.1%	71.4%
114 of 155	12/06/06	17	653 RLKRMAISGDDCVVKPI 669	1901.3	88.7%	61.5%
115 of 155	12/18/06	17	659 ISGDDCVVKPIDDRFAT 675	1851.1	90.4%	77.9%
116 of 155	12/08/06	17	665 VVKPIDDRFATALTALN 681	1844.2	87.4%	77.5%
117 of 155	12/15/06	17	671 DRFATALTALNDMGKVR 687	1879.2	91.7%	78.1%
118 of 155	12/11/06	17	677 LTALNDMGKVRKDIPQW 693	1985.4	93.9%	71.6%
119 of 155	12/15/06	17	683 MGKVRKDIPQWEPSKGW 699	2042.4	89.0%	70.9%
120 of 155	12/08/06	17	689 DIPQWEPSKGWNDWQQV 705	2113.3	96.4%	82.5%

Table 1						
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
121 of 155	12/14/06	17	695 PSKGWNDWQQVPFCSHH 711	2053.3	94.0%	68.7%
122 of 155	12/09/06	17	701 DWQQVPFCSHHFHQLIM 717	2153.5	93.7%	75.0%
123 of 155	12/07/06	17	707 FCSHHFHQLIMKDGREI 723	2098.4	90.0%	71.8%
124 of 155	12/01/06	17	713 HQLIMKDGREIVVPCRN 729	2008.4	85.7%	79.9%
125 of 155	12/04/06	17	719 DGREIVVPCRNQDELVG 735	1899.1	96.0%	80.4%
126 of 155	12/15/06	17	725 VPCRNQDELVGRARVSQ 741	1927.2	83.1%	73.5%
127 of 155	12/04/06	17	731 DELVGRARVSQGAGWSL 747	1801.0	84.0%	69.6%
128 of 155	12/01/06	17	737 ARVSQGAGWSLRETAQL 753	1805.0	84.4%	83.7%
129 of 155	12/18/06	17	743 AGWSLRETAQLGKSYAQ 759	1841.1	90.2%	67.9%
130 of 155	12/09/06	17	748 RETAQLGKSYAQMWQLM 764	2016.4	93.3%	76.2%
131 of 155	12/11/06	17	754 GKSYAQMWQLMYFHRRD 770	2217.6	97.6%	71.4%
132 of 155	12/06/06	17	760 MWQLMYFHRRDLRLAAN 776	2221.7	90.4%	71.3%
133 of 155	12/08/06	17	766 FHRRDLRLAANAICSAV 782	1913.2	94.2%	76.1%
134 of 155	12/08/06	16	772 RLAANAICSAVPVDWV 787	1685.0	98.1%	70.0%
135 of 155	12/14/06	17	777 AICSAVPVDWVPTSRTT 793	1803.1	87.3%	73.0%
136 of 155	12/14/06	17	783 PVDWVPTSRTTWSIHAH 799	1990.2	95.9%	81.5%
137 of 155	12/18/06	17	789 TSRTTWSIHAHHQWMTT 805	2081.3	91.4%	75.5%
138 of 155	11/30/06	17	795 SIHAHHQWMTTEDMLSV 811	2023.3	92.6%	78.6%
139 of 155	12/14/06	17	800 HQWMTTEDMLSVVNRVW 816	2219.6	69.7%	68.1%
140 of 155	12/04/06	16	805 TEDMLSVVNRVWIEEN 820	2021.2	84.5%	86.5%
141 of 155	12/09/06	17	810 SVVNRVWIEENPW MEDK 826	2218.5	96.2%	71.5%
142 of 155	12/11/06	17	816 WIEENPW MEDKTHVSSW 832	2174.4	89.5%	81.3%
143 of 155	12/07/06	17	822 WMEDKTHVSSWEDVPYL 838	2122.4	91.6%	73.0%
144 of 155	12/08/06	17	828 HVSSWEDVPYLGKREDQ 844	2045.2	92.5%	71.1%
145 of 155	12/08/06	17	834 DVPYLGKREDQWCGSLI 850	1979.2	90.4%	80.0%
146 of 155	12/08/06	17	840 KREDQWCGSLIGLTARA 856	1904.2	82.2%	64.3%
147 of 155	12/21/06	17	846 CGSLIGLTARATWATNI 862	1748.0	58.7%	76.3%
148 of 155	12/22/06	17	852 LTARATWATNIQVAINQ 868	1871.1	33.8%	75.8%
149 of 155	12/09/06	17	858 WATNIQVAINQVRR LIG 874	1952.3	98.1%	80.3%
150 of 155	12/09/06	17	864 VAINQVRR LIGNENYLD 880	1987.3	94.3%	81.8%
151 of 155	12/18/06	17	870 RRLIGNENYLDYMTSMK 886	2104.4	90.0%	79.7%
152 of 155	12/14/06	17	875 NENYLDYMTSMKRFKNE 891	2183.5	88.4%	75.7%
153 of 155	12/15/06	17	881 YMTSMKRFKNESDPKGH 897	2056.4	91.5%	68.2%
154 of 155	12/13/06	17	887 RFKNESDPKGHSGESTH 903	1913.0	93.2%	61.8%
155 of 155	12/13/06	12	893 DPKGHSGESTHL 904	1264.3	97.3%	74.9%

<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 of 155	Expected	1.00	2.00	2.00		1.00	4.00	1.00		1.00	3.00					1.00	1.00		
	Actual	0.95	1.93	1.96		1.00	3.85	0.96		1.05	2.83					0.93	0.00 <sup>a</sup>		
2 of 155	Expected		2.00	3.00		2.00	1.00	1.00		2.00	3.00				1.00		1.00		
	Actual		1.90	2.93		2.00	0.97	0.93		2.07	2.80				0.80		0.00 <sup>a</sup>		
3 of 155	Expected		1.00	4.00		2.00	1.00			2.00	2.00		1.00		2.00	1.00		1.00	
	Actual		0.98	4.11		2.16	1.00			2.19	2.04		1.10		1.63	1.02		1.12	
4 of 155	Expected		1.00	2.00		2.00	1.00		1.00	1.00	2.00	1.00	1.00		3.00	1.00		1.00	
	Actual		1.08	1.97		2.00	1.12		1.08	1.09	2.18	1.00	0.90		2.52	1.02		0.83	
5 of 155	Expected		2.00	2.00		2.00	1.00		1.00		1.00	1.00	1.00		2.00	1.00		1.00	1.00
	Actual		2.14	2.04		2.00	1.11		1.07		1.05	1.05	0.90		1.59	0.87		0.83	1.16
6 of 155	Expected	1.00	2.00	1.00		3.00	2.00		1.00		2.00	1.00			2.00			1.00	1.00
	Actual	1.10	2.11	1.05		3.00	2.20		1.03		2.11	0.98			1.79			0.84	1.15
7 of 155	Expected	1.00	2.00	1.00		4.00	2.00			1.00	2.00	1.00			1.00	1.00			1.00
	Actual	1.01	2.12	0.94		4.00	2.35			1.16	2.19	0.87			0.80	1.02			1.01
8 of 155	Expected	2.00	1.00			3.00	2.00	1.00		1.00	3.00				1.00	2.00			1.00
	Actual	2.13	1.02			3.00	2.07	1.10		1.03	3.13				0.94	1.67			1.14
9 of 155	Expected	2.00	2.00			1.00	2.00	1.00		1.00	3.00				1.00	3.00			1.00
	Actual	2.12	2.05			1.01	2.08	1.06		1.00	3.05				0.80	2.73			1.13
10 of 155	Expected	2.00	2.00			1.00	1.00	1.00		1.00	2.00		1.00		1.00	2.00	1.00		2.00
	Actual	2.20	2.19			1.05	1.07	1.10		1.08	2.13		1.00		0.83	1.95	0.00 <sup>a</sup>		2.28
11 of 155	Expected	1.00	3.00	1.00		1.00	1.00			2.00	2.00		1.00			1.00	1.00		2.00
	Actual	0.99	2.89	0.97		1.00	0.98			2.06	1.93		0.99			0.95	0.00 <sup>a</sup>		1.92
12 of 155	Expected		2.00	1.00		2.00	1.00		1.00	2.00	2.00		1.00	1.00			1.00		3.00
	Actual		1.95	1.00		2.00	1.04		0.79 <sup>b</sup>	2.07	1.99		1.00	1.04			0.00 <sup>a</sup>		2.73 <sup>b</sup>
13 of 155	Expected		2.00	2.00	1.00	1.00	3.00		1.00	2.00	2.00			1.00					2.00
	Actual		1.92	2.03	0.00 <sup>c</sup>	1.00	3.06		0.75 <sup>b</sup>	2.14	1.99			0.96					1.76 <sup>b</sup>
14 of 155	Expected		1.00	1.00	1.00	1.00	5.00		1.00	1.00	1.00			1.00	1.00		1.00	1.00	1.00
	Actual		1.04	1.03	0.00 <sup>c</sup>	1.08	5.21		0.89	1.03	1.03			1.00	0.81		0.00 <sup>a</sup>	0.93	0.93
15 of 155	Expected	1.00	1.00	1.00	2.00		5.00			2.00	1.00				1.00		1.00	2.00	
	Actual	1.11	1.13	1.00	0.00 <sup>c</sup>		5.49			2.10	1.11				0.85		0.00 <sup>a</sup>	2.03	
16 of 155	Expected	1.00			1.00	1.00	3.00			1.00	3.00				1.00	1.00	1.00	2.00	2.00
	Actual	1.06			0.00 <sup>c</sup>	1.00	3.17			1.05	3.14				0.81	0.92	0.00 <sup>a</sup>	1.89	2.15
17 of 155	Expected	1.00			1.00	1.00	4.00			1.00	4.00					2.00		1.00	2.00
	Actual	0.99			0.03 <sup>c</sup>	1.00	3.93			1.02	3.90					1.75		1.03	1.92
18 of 155	Expected					3.00	4.00	1.00			2.00			1.00	2.00			1.00	2.00
	Actual					3.00	4.13	1.01			1.99			1.03	1.69			1.07	1.94
19 of 155	Expected	1.00				2.00	4.00	1.00	1.00		1.00	1.00		3.00		2.00		1.00	
	Actual	1.19				1.97	4.00	1.03	0.93		1.00	1.03		3.15		1.80		1.05	
20 of 155	Expected	1.00		1.00		2.00	2.00	1.00	1.00	1.00		1.00		3.00		1.00	1.00	1.00	1.00
	Actual	1.07		1.03		2.00	1.94	1.01	0.89	1.06		1.04		3.14		0.88	0.00 <sup>a</sup>	1.05	1.03
21 of 155	Expected	1.00		1.00			2.00		1.00	2.00	2.00	1.00		1.00	1.00	1.00	1.00	2.00	1.00
	Actual	1.03		1.02			2.06		0.98	2.08	2.06	1.06		1.00	0.82	0.90	0.00 <sup>a</sup>	1.86	1.10
22 of 155	Expected			2.00			2.00			2.00	2.00		2.00		1.00	1.00	1.00	1.00	2.00
	Actual			1.96			1.93			2.00	2.04		2.00		0.84	0.96	0.00 <sup>a</sup>	0.91	2.22
23 of 155	Expected			2.00	1.00	1.00	1.00			1.00	3.00		2.00	2.00	1.00	1.00		1.00	1.00
	Actual			2.14	0.00 <sup>c</sup>	1.15	1.03			1.00	3.10		1.85	2.30	0.81	0.93		0.87	1.15
24 of 155	Expected			3.00	2.00	1.00			1.00	2.00	1.00		2.00	2.00		2.00			1.00
	Actual			3.03	0.00 <sup>c</sup>	1.00			0.97	2.16	0.96		1.89	1.94		1.77			0.91

**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)
25 of 155	Expected			3.00	2.00	2.00	1.00		1.00	2.00	1.00			2.00	2.00	1.00			
	Actual			3.04	0.03 <sup>c</sup>	2.02	1.03		0.97	2.14	1.00			1.99	1.61	0.95			
26 of 155	Expected			2.00	1.00	3.00	2.00		2.00	2.00				2.00	2.00	1.00			
	Actual			2.05	0.00 <sup>c</sup>	3.00	2.12		2.02	2.11				2.11	1.68	0.88			
27 of 155	Expected		2.00	1.00		3.00	2.00		1.00	1.00				2.00	2.00	2.00			1.00
	Actual		2.15	1.01		3.00	2.12		1.02	1.09				1.99	1.82	1.67			1.16
28 of 155	Expected		2.00			3.00	1.00		1.00	2.00	1.00	1.00		1.00		2.00			2.00
	Actual		1.92			3.00	0.97		0.93	2.08	0.97	0.99		0.89		1.78			1.94
29 of 155	Expected		3.00	1.00		1.00	2.00			3.00	1.00	1.00		1.00		1.00	1.00		2.00
	Actual		2.96	0.97		1.00	1.96			3.11	0.98	1.01		1.01		0.87	0.00 <sup>a</sup>		1.87
30 of 155	Expected		1.00	1.00	1.00	2.00	1.00		2.00	2.00	2.00	1.00	1.00	1.00			1.00		1.00
	Actual		0.94	1.00	0.03 <sup>c</sup>	2.00	0.98		1.77	2.00	1.84	0.94	1.01	0.88			0.00 <sup>a</sup>		0.91
31 of 155	Expected		1.00	2.00	1.00	1.00	1.00		2.00	2.00	1.00	1.00	1.00	1.00			1.00	1.00	
	Actual		0.94	2.00	0.04 <sup>c</sup>	1.00	1.00		1.87	2.05	0.99	1.02	1.00	0.99			0.00 <sup>a</sup>	1.01	
32 of 155	Expected			2.00	1.00	2.00			2.00	1.00	1.00	1.00	1.00	2.00	1.00			1.00	2.00
	Actual			1.98	0.00 <sup>c</sup>	2.00			1.90	1.15	1.00	0.88	0.84	2.13	0.85			0.80	2.08
33 of 155	Expected			1.00		4.00			1.00	2.00		2.00		2.00	1.00	1.00		1.00	2.00
	Actual			0.96		4.00			0.88	1.96		2.00		1.89	0.95	0.95		0.80	2.09
34 of 155	Expected		1.00			4.00	2.00	1.00		1.00	1.00	2.00		1.00	1.00	1.00			2.00
	Actual		1.03			4.15	2.00	1.02		1.09	1.01	2.05		1.00	0.80	0.97			1.89
35 of 155	Expected		2.00	1.00		3.00	2.00	1.00		3.00	1.00	2.00		1.00					1.00
	Actual		2.03	1.04		3.00	2.03	1.02		3.20	1.01	2.03		1.03					1.01
36 of 155	Expected		2.00	2.00			2.00	2.00		2.00	1.00	1.00		1.00	2.00	1.00			1.00
	Actual		2.11	2.14			2.14	2.11		2.23	1.05	1.00		1.15	1.66	1.02			1.09
37 of 155	Expected		2.00	2.00		1.00		1.00		1.00		1.00		1.00	2.00	1.00	1.00	1.00	2.00
	Actual		2.00	1.99		1.00		1.03		1.00		1.03		1.05	1.60	0.81	0.00 <sup>a</sup>	0.86	2.16
38 of 155	Expected		1.00	2.00	1.00	1.00	2.00	1.00				1.00			3.00	2.00	1.00	1.00	1.00
	Actual		1.11	2.21	0.00 <sup>c</sup>	1.00	2.36	1.12				1.13			2.40	1.89	0.00 <sup>a</sup>	0.92	1.16
39 of 155	Expected	1.00		1.00	1.00	1.00	2.00	1.00	1.00			1.00		1.00	2.00	1.00	1.00	1.00	3.00
	Actual	1.19		0.99	0.00 <sup>c</sup>	1.00	2.16	0.96	0.95			0.95			1.60	0.86	0.00 <sup>a</sup>	0.75	3.24
40 of 155	Expected	1.00	1.00	2.00	1.00		2.00		1.00			2.00			3.00	2.00			2.00
	Actual	1.11	1.03	2.00	0.00 <sup>c</sup>		2.06		0.85			1.60			2.40	1.64			2.04
41 of 155	Expected	1.00	2.00	2.00					1.00	2.00		2.00	1.00		2.00	2.00			2.00
	Actual	1.00	2.13	2.07					0.64 <sup>b</sup>	2.19		1.97	0.97		1.66	1.79			1.83 <sup>b</sup>
42 of 155	Expected	1.00	3.00	1.00				1.00		2.00	1.00	3.00	1.00		1.00	2.00			
	Actual	1.00	3.01	0.98				1.02		2.02	1.02	2.88	0.92		0.91	1.70			
43 of 155	Expected	1.00	3.00	2.00		1.00		1.00		2.00	1.00	1.00	1.00	1.00		2.00		1.00	
	Actual	1.03	3.00	1.97		1.00		1.02		2.06	1.00	1.01	0.99	1.06		1.80		1.00	
44 of 155	Expected	2.00	2.00	2.00		1.00	2.00	1.00		1.00	1.00	1.00		1.00		1.00		1.00	1.00
	Actual	1.93	1.98	1.99		0.99	2.00	0.99		1.05	0.98	0.99		1.03		0.86		1.02	1.00
45 of 155	Expected	2.00	2.00	2.00		1.00	2.00	1.00		1.00						2.00		1.00	3.00
	Actual	2.01	1.93	1.88		0.96	2.00	1.03		1.01						1.84		0.96	2.93
46 of 155	Expected	3.00	1.00	2.00		2.00	2.00	1.00		1.00				1.00		1.00			3.00
	Actual	2.98	1.00	1.94		2.28	1.95	1.03		1.01				1.15		0.97			3.02
47 of 155	Expected	2.00	1.00	2.00		3.00	1.00	1.00	2.00	1.00				1.00					3.00
	Actual	2.05	1.02	2.05		3.00	0.97	1.01	1.43 <sup>b</sup>	1.08				1.03					2.94
48 of 155	Expected	1.00	1.00	3.00		3.00	1.00		4.00	1.00	1.00			1.00					1.00
	Actual	1.01	1.00	3.00		3.01	1.00		3.39	1.04	0.97			1.00					1.01

**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)
49 of 155	Expected		1.00	2.00		3.00	1.00	2.00	4.00		2.00				1.00	1.00			
	Actual		1.06	2.08		3.00	1.08	2.20	3.79		2.20				1.08	0.98			
50 of 155	Expected			3.00		3.00		3.00	2.00		2.00				1.00	1.00	1.00	1.00	
	Actual			3.17		3.00		3.35	2.08		2.20				1.00	1.05	0.00 <sup>a</sup>	1.00	
51 of 155	Expected			3.00		2.00		3.00			2.00			1.00	1.00	2.00	1.00	2.00	
	Actual			3.30		2.00		3.21			2.27			1.15	0.95	2.14	0.00 <sup>a</sup>	2.10	
52 of 155	Expected	1.00		3.00		1.00	1.00	2.00			1.00			1.00		1.00	2.00	3.00	
	Actual	1.01		2.96		1.00	1.00	2.00			1.00			1.06		0.98	0.00 <sup>a</sup>	3.11	
53 of 155	Expected	1.00		2.00		1.00	1.00	1.00			2.00			1.00	1.00	1.00	1.00	3.00	1.00
	Actual	1.06		1.95		1.00	1.04	1.05			2.08			1.03	0.89	0.90	0.00 <sup>a</sup>	2.76	1.10
54 of 155	Expected	2.00				1.00	2.00	1.00			1.00			1.00	3.00	1.00	1.00	2.00	1.00
	Actual	2.00				1.03	2.15	1.11			1.09			1.13	2.50	0.88	0.00 <sup>a</sup>	1.96	1.14
55 of 155	Expected	1.00		1.00		1.00	3.00				1.00	1.00		1.00	5.00			1.00	2.00
	Actual	1.11		1.08		1.00	3.26				1.08	1.12		1.12	4.00			0.87	2.32
56 of 155	Expected	1.00		1.00			2.00			2.00	1.00	1.00		1.00	4.00	1.00			3.00
	Actual	0.89		1.05			2.00			2.39	1.01	0.92		1.00	3.20	0.91			3.38
57 of 155	Expected	1.00		2.00			1.00		1.00	2.00	2.00	1.00		1.00	1.00	1.00	1.00		3.00
	Actual	1.06		2.00			1.04		0.98	2.08	2.08	1.03		1.00	0.84	0.96	0.00 <sup>a</sup>		3.11
58 of 155	Expected	1.00		1.00		1.00			2.00	2.00	2.00	1.00		2.00		2.00	1.00		2.00
	Actual	0.99		0.97		1.00			1.85	2.04	1.94	1.01		2.05		1.90	0.00 <sup>a</sup>		1.92
59 of 155	Expected	2.00		2.00		1.00			2.00			2.00		2.00		4.00	1.00		1.00
	Actual	2.00		2.01		1.00			1.92			2.03		2.11		3.81	0.00 <sup>a</sup>		1.01
60 of 155	Expected	1.00	1.00	1.00		3.00	1.00		1.00			2.00	1.00	1.00		4.00			1.00
	Actual	1.13	1.03	1.02		3.00	1.08		0.99			2.01	0.95	1.05		3.44			0.96
61 of 155	Expected		1.00	1.00		3.00	1.00				2.00	1.00	2.00	1.00		3.00			2.00
	Actual		1.00	0.98		3.02	1.00				2.00	0.99	2.01	1.00		2.77			1.95
62 of 155	Expected		2.00	1.00		3.00	1.00				3.00		2.00	1.00		2.00			2.00
	Actual		1.98	1.00		2.61	0.81				3.00		1.77	1.03		1.79			1.98
63 of 155	Expected	2.00	2.00	1.00		1.00	1.00				4.00		1.00	1.00		3.00			1.00
	Actual	1.94	1.98	1.00		1.02	1.00				3.86		0.99	1.00		2.85			0.98
64 of 155	Expected	2.00	2.00			2.00	1.00		1.00		2.00	1.00		1.00		4.00			1.00
	Actual	1.96	1.93			2.04	1.00		0.99		1.94	1.04		0.95		3.84			1.06
65 of 155	Expected	2.00	2.00			2.00	2.00		1.00	1.00	1.00	1.00				2.00	2.00		1.00
	Actual	2.06	2.03			2.00	2.05		0.99	1.00	1.00	1.03				1.70	0.00 <sup>a</sup>		1.03
66 of 155	Expected	1.00	2.00	1.00		1.00	1.00		1.00	2.00	1.00	1.00	1.00		1.00	1.00	2.00		1.00
	Actual	1.05	2.09	1.08		1.06	1.06		1.00	2.20	1.05	1.00	1.09		0.83	1.00	0.00 <sup>a</sup>		1.02
67 of 155	Expected		3.00	1.00	1.00		1.00		1.00	2.00	2.00		1.00	1.00	1.00	1.00	2.00		
	Actual		3.44	1.03	0.00 <sup>c</sup>		1.04		0.81	1.98	2.09		0.93	1.00	0.87	0.92	0.00 <sup>a</sup>		
68 of 155	Expected		4.00	1.00	1.00	2.00			1.00	1.00	2.00		1.00	1.00	1.00	2.00			
	Actual		4.62	1.18	0.00 <sup>c</sup>	2.00			1.06	1.20	2.34		1.15	1.03	0.93	2.27			
69 of 155	Expected	1.00	4.00	1.00	1.00	2.00			1.00		1.00		1.00	1.00	1.00	2.00			1.00
	Actual	1.00	4.01	1.01	0.00 <sup>c</sup>	2.09			0.98		1.03		0.93	0.84	0.85	1.85			1.06
70 of 155	Expected	3.00	3.00	1.00		2.00	1.00		1.00		1.00		1.00		1.00	1.00			2.00
	Actual	3.38	3.13	1.08		2.00	1.08		1.08		1.05		0.97		0.95	0.91			2.37
71 of 155	Expected	3.00	1.00	3.00		2.00	1.00		1.00		1.00		1.00	1.00					3.00
	Actual	3.24	1.06	3.13		2.00	1.09		1.03		1.06		0.89		0.89				3.41
72 of 155	Expected	3.00		3.00		3.00	1.00		1.00		1.00		1.00	1.00			1.00		2.00
	Actual	3.26		3.19		3.00	1.05		1.04		1.07		0.90		0.93		0.00 <sup>a</sup>		2.30

**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)
73 of 155	Expected	2.00	1.00	4.00		5.00					1.00				1.00		1.00		2.00
	Actual	2.09	1.16	4.00		4.77					1.05				0.94		0.00 <sup>a</sup>		2.19
74 of 155	Expected	2.00	1.00	3.00		3.00		1.00		1.00	1.00		1.00		1.00		1.00		2.00
	Actual	2.03	1.20	3.01		3.00		1.07		1.08	1.02		0.96		0.87		0.00 <sup>a</sup>		2.27
75 of 155	Expected		3.00	2.00		4.00		2.00		2.00			1.00				1.00		2.00
	Actual		2.95	1.96		4.00		1.97		2.08			0.99				0.00 <sup>a</sup>		1.92
76 of 155	Expected	1.00	2.00	1.00	1.00	3.00	1.00	2.00		2.00	2.00						1.00		1.00
	Actual	0.94	1.98	0.98	0.02 <sup>c</sup>	3.00	0.95	1.98		2.07	1.92						0.00 <sup>a</sup>		0.96
77 of 155	Expected	1.00	2.00	1.00	2.00	3.00	1.00	1.00		1.00	2.00					1.00		1.00	1.00
	Actual	1.16	2.04	1.12	0.00 <sup>c</sup>	3.00	1.08	1.07		1.03	2.19					0.80		1.05	1.16
78 of 155	Expected	1.00	1.00	1.00	2.00	2.00	2.00				3.00	2.00				1.00		1.00	1.00
	Actual	1.04	1.02	1.00	0.00 <sup>c</sup>	2.02	2.06				3.05	2.17				0.80		0.94	1.06
79 of 155	Expected		1.00	1.00	1.00	2.00	2.00			1.00	3.00	2.00	1.00			1.00		1.00	1.00
	Actual		1.06	0.98	0.00 <sup>c</sup>	2.00	2.19			1.10	3.21	2.18	1.01			0.80		0.93	1.05
80 of 155	Expected	1.00	1.00			2.00	4.00			1.00	5.00	1.00	1.00						
	Actual	0.99	0.97			2.00	3.91			1.03	4.82	0.97	1.01						
81 of 155	Expected	2.00	1.00			1.00	3.00		1.00	1.00	4.00		1.00		1.00		1.00	1.00	
	Actual	2.22	1.16			1.00	3.19		1.06	1.04	4.19		0.95		0.83		0.00 <sup>a</sup>	1.03	
82 of 155	Expected	3.00	2.00				3.00		1.00	1.00	2.00	1.00			1.00		2.00	1.00	
	Actual	2.96	1.98				3.00		0.96	1.03	1.95	1.00			0.80		0.00 <sup>a</sup>	1.04	
83 of 155	Expected	3.00	2.00			2.00	1.00		1.00	2.00		1.00	2.00				2.00	1.00	
	Actual	2.99	2.00			2.12	1.05		0.82	2.18		1.01	2.09				0.00 <sup>a</sup>	1.01	
84 of 155	Expected	2.00	1.00	1.00		3.00	2.00			3.00		1.00	3.00				1.00		
	Actual	1.97	0.95	0.98		3.00	1.93			3.10		0.98	2.95				0.00 <sup>a</sup>		
85 of 155	Expected	1.00	1.00	2.00		3.00	1.00	1.00		2.00		1.00	3.00		1.00		1.00		
	Actual	1.02	1.10	2.06		2.85	1.04	1.06		2.00		1.10	2.80		0.91		0.00 <sup>a</sup>		
86 of 155	Expected		1.00	3.00		2.00	2.00	1.00		1.00		1.00	2.00		3.00		1.00		
	Actual		1.05	3.04		2.00	2.09	1.03		1.02		1.05	1.89		2.40		0.00 <sup>a</sup>		
87 of 155	Expected		1.00	1.00		3.00	3.00	1.00		2.00			1.00		3.00		1.00		1.00
	Actual		0.96	1.03		3.00	3.27	0.98		2.13			0.87		2.40		0.00 <sup>a</sup>		1.11
88 of 155	Expected			1.00		2.00	4.00	1.00	1.00	3.00	1.00				2.00			1.00	1.00
	Actual			1.02		2.00	4.37	1.09	1.03	3.16	1.08				1.65			0.90	1.10
89 of 155	Expected		1.00	1.00		2.00	3.00	1.00	2.00	3.00	1.00							1.00	1.00
	Actual		0.98	1.00		2.00	2.93	0.98	1.90	3.09	0.96							1.02	0.92
90 of 155	Expected		1.00	1.00			3.00	1.00	3.00	3.00	2.00			1.00	1.00			1.00	
	Actual		0.97	0.97			3.00	0.99	2.84	2.98	1.97			0.94	0.82			0.83	
91 of 155	Expected	1.00	1.00	4.00			2.00		3.00	1.00	1.00	1.00		1.00	1.00			1.00	
	Actual	1.08	1.01	4.05			2.14		3.02	1.03	1.05	1.04		1.05	0.81			0.89	
92 of 155	Expected	2.00		4.00			3.00		1.00		1.00	1.00		1.00		2.00	1.00	1.00	
	Actual	2.09		4.16			3.00		0.97		0.96	1.02		1.02		1.89	0.00 <sup>a</sup>	1.05	
93 of 155	Expected	2.00	1.00	5.00		1.00	1.00		1.00			1.00				3.00	1.00	1.00	
	Actual	2.08	0.99	4.92		1.00	0.94		0.94			1.03				2.61	0.00 <sup>a</sup>	1.05	
94 of 155	Expected	2.00	1.00	4.00		3.00	1.00		1.00	1.00	1.00					2.00	1.00		
	Actual	1.95	0.97	3.88		3.00	0.87		0.91	1.04	0.98					1.88	0.00 <sup>a</sup>		
95 of 155	Expected	1.00		4.00		4.00			3.00	1.00	1.00	1.00				2.00			
	Actual	1.04		3.92		4.00			2.85	1.04	0.98	1.00				1.72			
96 of 155	Expected	2.00		2.00		4.00		1.00	2.00	2.00	1.00	1.00		1.00		1.00			
	Actual	1.97		1.97		4.00		0.98	1.92	2.05	0.99	1.02		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)
97 of 155	Expected	2.00		1.00		2.00		1.00	3.00	2.00		1.00	1.00	1.00	1.00	2.00			
	Actual	2.23		1.02		2.00		1.10	3.00	2.24		1.01	0.99	1.05	0.93	1.87			
98 of 155	Expected	2.00		1.00		2.00		1.00	1.00	3.00	1.00		1.00	1.00	1.00	2.00		1.00	
	Actual	1.78		1.18		2.00		0.94	1.20	3.18	1.20		1.09	1.00	1.01	2.20		0.98	
99 of 155	Expected	1.00	1.00	1.00		2.00			1.00	1.00	2.00		1.00		1.00	2.00		1.00	3.00
	Actual	1.03	1.05	1.04		2.14			0.97	1.05	2.04		1.03		0.80	1.95		1.03	3.00
100 of 155	Expected	1.00	2.00	2.00		2.00	1.00			1.00	2.00			1.00		1.00		1.00	3.00
	Actual	1.06	2.00	2.01		2.00	1.03			1.02	2.03			1.09		0.96		1.03	2.81
101 of 155	Expected	1.00	2.00	2.00		1.00	1.00		1.00		1.00	1.00		1.00		1.00			5.00
	Actual	1.00	1.93	1.95		0.95	1.00		0.76 <sup>b</sup>		0.99	0.98		1.03		0.84			3.89 <sup>b</sup>
102 of 155	Expected	1.00	3.00	3.00		1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00			2.00
	Actual	1.00	3.03	2.98		1.00	0.99		0.88		1.00	0.97		1.00	0.83	0.91			2.07
103 of 155	Expected		3.00	2.00		2.00	3.00		1.00			1.00			2.00				3.00
	Actual		3.17	2.14		2.00	3.25		0.93			1.02			1.74				3.33
104 of 155	Expected		3.00	2.00		2.00	4.00			1.00					1.00	2.00		1.00	1.00
	Actual		2.87	2.03		2.00	3.96			1.09					0.80	1.95		1.03	0.96
105 of 155	Expected	1.00		2.00		2.00	3.00			1.00		1.00	1.00		1.00	3.00		1.00	1.00
	Actual	0.95		2.02		2.00	2.97			1.04		1.02	1.01		0.82	2.90		1.02	1.00
106 of 155	Expected	1.00	1.00	2.00		3.00	1.00		1.00	2.00		2.00	1.00			2.00		1.00	
	Actual	1.01	1.01	1.84		3.00	0.92		0.96	2.01		1.97	0.94			1.80		0.93	
107 of 155	Expected	1.00	1.00	1.00		5.00	1.00		2.00	1.00		2.00	1.00		1.00	1.00			
	Actual	1.05	1.04	1.01		5.00	1.10		2.07	1.06		2.01	0.92		0.92	0.95			
108 of 155	Expected		1.00			5.00	1.00		2.00	2.00		1.00	1.00	1.00	3.00				
	Actual		1.04			5.00	1.07		2.03	2.12		1.01	0.94	1.01	2.50				
109 of 155	Expected	1.00		1.00		4.00	1.00		1.00	2.00			1.00	2.00	3.00	1.00			
	Actual	1.05		1.07		4.18	1.05		1.00	2.22			1.05	2.14	2.44	0.97			
110 of 155	Expected	1.00	1.00	2.00		3.00				4.00				2.00	1.00	1.00	1.00		1.00
	Actual	1.15	1.12	1.65		2.69				4.55				2.33	0.88	1.00	0.00 <sup>a</sup>		1.20
111 of 155	Expected	1.00	1.00	2.00		3.00	1.00			3.00	1.00			1.00			1.00	1.00	2.00
	Actual	1.06	1.10	1.60		3.10	1.07			3.16	1.07			1.18			0.00 <sup>a</sup>	1.00	2.26
112 of 155	Expected	1.00	2.00	1.00		2.00	1.00			3.00	2.00	1.00					1.00	1.00	2.00
	Actual	1.01	2.05	0.80		2.00	1.03			3.07	2.03	1.04					0.00 <sup>a</sup>	0.96	2.18
113 of 155	Expected	1.00	2.00	2.00		1.00	2.00		1.00	1.00	2.00	1.00			1.00			1.00	1.00
	Actual	1.10	2.06	2.04		1.02	2.09		1.06	1.08	2.00	1.09			0.81			1.00	0.99
114 of 155	Expected	1.00	2.00	2.00	1.00		1.00		2.00	1.00	2.00	1.00		1.00	1.00				2.00
	Actual	1.00	1.93	2.00	0.00 <sup>c</sup>		0.99		1.93	0.97	1.99	1.01		0.95	0.85				1.83
115 of 155	Expected	1.00	1.00	4.00	1.00		1.00		2.00		1.00		1.00	1.00	1.00	1.00			2.00
	Actual	1.07	1.05	4.00	0.00 <sup>c</sup>		1.00		1.99		1.01		0.95	0.99	0.80	0.94			1.87
116 of 155	Expected	3.00	1.00	3.00					1.00	2.00	1.00		1.00	1.00		2.00			2.00
	Actual	3.13	1.03	3.00					0.97	2.13	1.00		0.96	0.97		2.01			1.87
117 of 155	Expected	3.00	2.00	3.00			1.00			2.00	1.00	1.00	1.00			2.00			1.00
	Actual	2.97	1.88	2.91			1.00			2.12	0.97	0.99	0.95			1.72			0.85
118 of 155	Expected	1.00	1.00	3.00		1.00	1.00		1.00	2.00	2.00	1.00		1.00		1.00	1.00		1.00
	Actual	1.00	1.02	2.98		1.00	1.00		0.99	2.06	2.04	1.00		1.10		0.95	0.00 <sup>a</sup>		1.02
119 of 155	Expected		1.00	1.00		2.00	2.00		1.00		3.00	1.00		2.00	1.00		2.00		1.00
	Actual		1.16	0.99		2.00	2.09		0.98		3.05	0.98		2.20	0.87		0.00 <sup>a</sup>		1.05
120 of 155	Expected			3.00		4.00	1.00		1.00		1.00			2.00	1.00		3.00		1.00
	Actual			2.56		4.00	1.08		1.02		1.07			1.97	0.92		0.00 <sup>a</sup>		1.14

**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)
121 of 155	Expected			2.00	1.00	2.00	1.00	2.00			1.00		1.00	2.00	2.00		2.00		1.00
	Actual			1.70	0.00 <sup>c</sup>	2.22	1.11	2.29			1.08		1.00	2.33	1.72		0.00 <sup>a</sup>		1.17
122 of 155	Expected			1.00	1.00	3.00		3.00	1.00	1.00		1.00	2.00	1.00	1.00		1.00		1.00
	Actual			0.84	0.00 <sup>c</sup>	3.00		3.06	1.01	1.07		1.05	1.81	0.94	0.80		0.00 <sup>a</sup>		1.19
123 of 155	Expected		1.00	1.00	1.00	2.00	1.00	3.00	2.00	1.00	1.00	1.00	2.00		1.00				
	Actual		1.05	1.05	0.00 <sup>c</sup>	2.00	1.08	3.10	2.04	1.03	1.04	1.06	1.83		0.82				
124 of 155	Expected		2.00	2.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00		1.00					2.00
	Actual		1.98	2.02	0.03 <sup>c</sup>	2.00	0.96	0.93	1.85	1.00	0.93	0.95		0.96					1.87
125 of 155	Expected		2.00	3.00	1.00	3.00	2.00		1.00	1.00				1.00					3.00
	Actual		1.99	3.02	0.00 <sup>c</sup>	3.13	2.00		0.91	1.06				0.91					2.78
126 of 155	Expected	1.00	3.00	2.00	1.00	3.00	1.00			1.00				1.00	1.00				3.00
	Actual	1.04	3.01	2.02	0.00 <sup>c</sup>	3.00	1.03			1.03				0.95	0.87				3.10
127 of 155	Expected	2.00	2.00	1.00		2.00	3.00			2.00					2.00		1.00		2.00
	Actual	2.10	2.02	0.95		1.84	3.07			2.00					1.72		0.00 <sup>a</sup>		2.09
128 of 155	Expected	3.00	2.00		1.00	2.00	2.00			2.00					2.00	1.00	1.00		1.00
	Actual	3.17	2.11		0.00 <sup>c</sup>	2.00	2.04			2.12					1.61	0.96	0.00 <sup>a</sup>		1.02
129 of 155	Expected	3.00	1.00		1.00	2.00	2.00			2.00	1.00				2.00	1.00	1.00	1.00	
	Actual	3.29	1.12		0.00 <sup>c</sup>	2.00	2.16			2.22	1.12				1.87	0.99	0.00 <sup>a</sup>	0.96	
130 of 155	Expected	2.00	1.00		1.00	3.00	1.00			2.00	1.00	2.00			1.00	1.00	1.00	1.00	
	Actual	2.04	1.00		0.02 <sup>c</sup>	3.09	1.03			2.12	1.02	2.02			0.80	0.96	0.00 <sup>a</sup>	1.06	
131 of 155	Expected	1.00	2.00	1.00		2.00	1.00	1.00		1.00	1.00	2.00	1.00		1.00		1.00	2.00	
	Actual	1.05	2.11	1.06		2.00	1.03	1.07		1.05	1.04	2.10	0.93		0.87		0.00 <sup>a</sup>	1.92	
132 of 155	Expected	2.00	3.00	2.00		1.00		1.00		3.00		2.00	1.00				1.00	1.00	
	Actual	2.06	3.13	2.11		1.00		1.06		3.29		2.01	1.03				0.00 <sup>a</sup>	1.08	
133 of 155	Expected	4.00	3.00	2.00	1.00			1.00	1.00	2.00			1.00		1.00				1.00
	Actual	4.03	2.93	2.01	0.00 <sup>c</sup>			0.99	0.85	2.00			0.88		0.80				1.06
134 of 155	Expected	4.00	1.00	2.00	1.00				1.00	1.00				1.00	1.00		1.00		3.00
	Actual	4.15	1.03	1.75	0.00 <sup>c</sup>				0.93	1.03				1.00	0.85		0.00 <sup>a</sup>		3.31
135 of 155	Expected	2.00	1.00	1.00	1.00				1.00					2.00	2.00	3.00	1.00		3.00
	Actual	2.28	1.20	0.80	0.00 <sup>c</sup>				1.12					2.00	1.90	3.21	0.00 <sup>a</sup>		3.58
136 of 155	Expected	1.00	1.00	1.00				2.00	1.00					2.00	2.00	3.00	2.00		2.00
	Actual	1.00	1.13	0.80				2.06	0.99					1.97	1.60	2.59	0.00 <sup>a</sup>		2.12
137 of 155	Expected	1.00	1.00			1.00		3.00	1.00			1.00			2.00	5.00	2.00		
	Actual	1.08	1.00			1.03		3.20	0.97			1.08			1.63	4.88	0.00 <sup>a</sup>		
138 of 155	Expected	1.00		1.00		2.00		3.00	1.00	1.00		2.00			2.00	2.00	1.00		1.00
	Actual	0.98		1.09		2.00		3.06	0.98	1.13		2.09			1.72	1.97	0.00 <sup>a</sup>		1.03
139 of 155	Expected		1.00	2.00		2.00		1.00		1.00		2.00			1.00	2.00	3.00		2.00
	Actual		1.15	2.04		1.64		0.85		1.00		1.97			0.82	1.79	0.00 <sup>a</sup>		2.13
140 of 155	Expected		1.00	3.00		3.00			1.00	1.00		1.00			1.00	1.00	2.00		2.00
	Actual		1.03	3.01		3.00			0.90	1.10		1.01			0.80	0.96	0.00 <sup>a</sup>		1.96
141 of 155	Expected		1.00	3.00		3.00			1.00		1.00	1.00		1.00	1.00		3.00		2.00
	Actual		1.19	3.10		3.00			1.00		1.04	1.07		1.17	0.89		0.00 <sup>a</sup>		2.21
142 of 155	Expected			2.00		3.00		1.00	1.00		1.00	1.00		1.00	2.00	1.00	3.00		1.00
	Actual			2.16		3.20		1.07	1.02		1.08	1.05		1.08	1.61	1.00	0.00 <sup>a</sup>		1.06
143 of 155	Expected			2.00		2.00		1.00		1.00	1.00	1.00		1.00	2.00	1.00	2.00	1.00	2.00
	Actual			2.17		2.00		1.08		1.09	1.06	1.06		1.01	1.82	0.91	0.00 <sup>a</sup>	0.96	2.34
144 of 155	Expected		1.00	2.00		3.00	1.00	1.00		1.00	1.00			1.00	2.00		1.00	1.00	2.00
	Actual		1.07	2.04		2.94	1.05	1.01		1.03	1.04			1.08	1.62		0.00 <sup>a</sup>	0.93	2.18

**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)
145 of 155	Expected		1.00	2.00	1.00	2.00	2.00		1.00	2.00	1.00			1.00	1.00		1.00	1.00	1.00
	Actual		0.98	2.03	0.02 <sup>c</sup>	1.87	2.00		0.96	2.06	0.99			0.91	0.81		0.00 <sup>a</sup>	0.97	0.97
146 of 155	Expected	2.00	2.00	1.00	1.00	2.00	2.00		1.00	2.00	1.00				1.00	1.00	1.00		
	Actual	2.10	2.05	1.01	0.00 <sup>c</sup>	2.00	2.09		1.01	2.12	1.03				0.88	0.97	0.00 <sup>a</sup>		
147 of 155	Expected	3.00	1.00	1.00	1.00		2.00		2.00	2.00					1.00	3.00	1.00		
	Actual	3.31	1.07	1.11	0.00 <sup>c</sup>		1.84		1.99	2.00					0.82	2.94	0.00 <sup>a</sup>		
148 of 155	Expected	4.00	1.00	2.00		2.00			2.00	1.00						3.00	1.00		1.00
	Actual	4.00	0.89	2.40		2.37			2.30	0.82						2.40	0.00 <sup>a</sup>		1.20
149 of 155	Expected	2.00	2.00	2.00		2.00	1.00		3.00	1.00						1.00	1.00		2.00
	Actual	2.07	1.99	2.02		2.00	1.02		2.83	1.06						0.89	0.00 <sup>a</sup>		1.93
150 of 155	Expected	1.00	2.00	4.00		2.00	1.00		2.00	2.00								1.00	2.00
	Actual	0.97	1.88	3.97		2.00	0.98		1.79	2.06								1.04	1.84
151 of 155	Expected		2.00	3.00		1.00	1.00		1.00	2.00	1.00	2.00			1.00	1.00		2.00	
	Actual		1.94	3.00		1.03	1.06		0.91	2.06	0.99	1.99			0.81	0.98		2.06	
152 of 155	Expected		1.00	4.00		2.00				1.00	2.00	2.00	1.00		1.00	1.00		2.00	
	Actual		1.04	4.07		2.04				1.09	2.08	2.12	1.06		0.81	1.00		2.18	
153 of 155	Expected		1.00	2.00		1.00	1.00	1.00			3.00	2.00	1.00	1.00	2.00	1.00		1.00	
	Actual		1.03	2.07		1.00	1.05	1.05			3.11	2.15	0.94	1.07	1.65	0.97		0.89	
154 of 155	Expected		1.00	2.00		2.00	2.00	2.00			2.00		1.00	1.00	3.00	1.00			
	Actual		1.04	2.10		2.00	2.14	2.15			2.12		0.94	0.95	2.49	0.97			
155 of 155	Expected			1.00		1.00	2.00	2.00		1.00	1.00			1.00	2.00	1.00			
	Actual			0.92		1.01	2.03	2.03		1.00	1.00			1.01	1.60	0.92			

<sup>a</sup>Trp was completely destroyed during hydrolysis  
<sup>b</sup>Ile-Ile, Val-Ile, Val-Val, and/or Ile-Val bonds were only partially hydrolyzed during hydrolysis  
<sup>c</sup>Cys was completely destroyed during hydrolysis

**Date:** 30 APR 200

**Signature:** Signature on File

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

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