

## Peptide Array, Dengue Virus Type 2 (DEN-2), New Guinea C (NGC), NS5 Protein

### Catalog No. NR-2746

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

**Product Description:** The 156-peptide array spans the NS5 protein of Dengue virus type 2, New Guinea C (GenPept: AAA42941). Peptides are 15- to 17-mers, with 11 to 13 amino acid overlaps.

### Lot: PC0305

The following information applies to all peptides:

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

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

Table 1							
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
1 of 156	11/13/2006	17	1 GTGNIGETLGEKWKSRL 17	1846.34	-0.91	94.6%	68.1%
2 of 156	11/13/2006	17	6 GETLGEKWKSRLNALGK 22	1887.66	-1.01	97.3%	69.7%
3 of 156	11/10/2006	17	12 KWKSRLNALGKSEFIY 28	2068.60	-0.84	90.4%	79.2%
4 of 156	11/10/2006	17	18 NALGKSEFIYKKSIGIQ 34	1911.54	-0.71	86.2%	71.0%
5 of 156	12/27/2006	17	23 SEFIYKKSIGIQEVDRT 39	2028.34	-1.05	93.0%	67.3%
6 of 156	11/10/2006	17	29 KKSIGIQEVDRTLAKEGI 45	1872.20	-0.81	93.2%	60.7%
7 of 156	11/10/2006	17	33 IQEVDRTLAKEGIKRGE 49	1942.06	-1	88.4%	57.5%
8 of 156	11/10/2006	17	39 TLAKEGIKRGETDHHAV 55	1861.94	-0.9	91.8%	59.9%
9 of 156	11/14/2006	17	45 IKRGETDHHAVSRGSAK 61	1849.26	-1.24	95.4%	55.4%
10 of 156	11/21/2006	17	51 DHHAVSRGSAKLRFVFE 67	1994.86	-0.62	83.0%	57.9%
11 of 156	11/22/2006	16	57 RGSAKLRFVERNMVT 72	1950.34	-0.53	82.3%	65.7%
12 of 156	11/20/2006	17	62 LRWFVERNMVTPEGKVV 78	2060.74	-0.1	84.2%	61.2%
13 of 156	11/15/2006	17	68 RNMVTPEGKVVDLGCGR 84	1831.00	-0.36	88.6%	84.7%
14 of 156	11/29/2006	17	73 PEGKVVDLGCGRGGWSY 89	1779.80	-0.43	85.5%	74.9%
15 of 156	11/15/2006	17	79 DLGCGRGGWSYCYGGLK 95	1792.06	-0.35	91.3%	66.6%
16 of 156	11/15/2006	17	85 GGWSYCYGGLKNVREVK 101	1916.20	-0.62	90.1%	68.0%
17 of 156	11/10/2006	17	91 CGGLKNVREVKGLTKGG 107	1715.80	-0.44	81.5%	66.7%
18 of 156	11/13/2006	16	97 VREVKGLTKGGPGHEE 112	1692.74	-1.11	96.6%	67.2%
19 of 156	12/27/2006	17	102 GLTKGGPGHEEPIPMST 118	1707.47	-0.74	94.6%	71.9%
20 of 156	11/28/2006	17	108 PGHEEPIPMSTYGNLV 124	1927.40	-0.51	87.9%	78.9%
21 of 156	01/08/2007	17	114 IPMSTYGNLVRLQSGV 130	1921.66	0.24	90.8%	78.2%
22 of 156	12/19/2006	16	120 GWNLVRLQSGVDVFFT 135	1837.54	0.48	82.1%	71.3%
23 of 156	01/08/2007	17	125 RLQSGVDVFFTPEKCD 141	1937.94	-0.42	90.5%	76.5%
24 of 156	12/22/2006	17	131 DVFFTPEKCDTLLCDI 147	1955.27	0.26	88.4%	84.7%
25 of 156	01/03/2007	17	137 PEKCDTLLCDIGESSPN 153	1820.34	-0.6	81.9%	88.0%
26 of 156	12/21/2006	17	143 LLCDIGESSPNPTVEAG 159	1701.13	0.02	90.4%	87.0%

Table 1

Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
27 of 156	12/27/2006	17	148 GESSNPNTVEAGRTLRLV 164	1769.94	-0.74	90.5%	69.4%
28 of 156	12/19/2006	17	154 PTVEAGRTLRLVNLVEN 170	1881.00	-0.04	98.2%	76.6%
29 of 156	12/13/2006	17	160 RTLRLVNLVENWLNNT 176	2069.40	-0.51	86.7%	66.0%
30 of 156	01/08/2007	17	166 NLVENWLNNTQFCIKV 182	2049.26	-0.25	86.3%	74.9%
31 of 156	12/18/2006	16	172 LNNNTQFCIKVLNPYM 187	1912.27	-0.09	80.4%	78.9%
32 of 156	12/19/2006	17	176 TQFCIKVLNPYMPSVIE 192	1982.00	0.47	89.0%	80.7%
33 of 156	12/27/2006	17	182 VLNPYMPSVIEKMEALQ 198	1962.13	0.17	96.9%	66.6%
34 of 156	12/13/2006	17	188 PSVIEKMEALQRKYGGA 204	1876.86	-0.55	94.3%	77.5%
35 of 156	12/13/2006	17	194 MEALQRKYGGALVRNPL 210	1916.74	-0.35	96.3%	75.2%
36 of 156	11/30/2006	17	200 KYGGALVRNPLSRNSTH 216	1869.94	-0.91	97.9%	73.1%
37 of 156	12/11/2006	16	206 VRNPLSRNSTHEMYWL 221	2003.14	-0.94	91.9%	74.8%
38 of 156	12/13/2006	17	211 SRNSTHEMYWLSNASGN 227	1954.34	-1.22	96.6%	76.8%
39 of 156	12/28/2006	17	216 HEMYWLSNASGNIVSSV 232	1893.27	0.05	81.1%	75.8%
40 of 156	02/02/2007	17	222 SNASGNIVSSVNIMSRM 238	1766.47	0.21	80.6%	80.8%
41 of 156	12/27/2006	17	228 IVSSVNIMSRMLINRFT 244	1981.14	0.78	90.9%	71.5%
42 of 156	12/11/2006	17	234 MISRMLINRFTMRHKKA 250	2133.66	-0.38	93.4%	67.0%
43 of 156	11/29/2006	17	240 INRFTMRHKKATYEPDV 256	2106.46	-1.15	92.1%	71.2%
44 of 156	11/29/2006	17	246 RHKKATYEPDVLGSGT 262	1874.46	-1.3	95.5%	63.4%
45 of 156	11/29/2006	17	252 YEPDVLGSGTRNIGIE 268	1834.60	-0.62	94.0%	80.2%
46 of 156	12/21/2006	17	258 LGSGTRNIGIESEIPNL 274	1769.40	-0.15	94.8%	77.1%
47 of 156	12/21/2006	17	264 NIGIESEIPNLDIIGKR 280	1880.60	-0.16	96.7%	71.3%
48 of 156	11/20/2006	17	269 SEIPNLDIIGKRIEKIK 285	1966.20	-0.39	83.3%	71.3%
49 of 156	11/20/2006	16	275 DIIGKRIEKIKQEHET 290	1937.26	-1.25	93.3%	76.3%
50 of 156	11/17/2006	17	280 RIEKIKQEHETSWHYDQ 296	2227.80	-2.02	94.6%	81.8%
51 of 156	11/21/2006	17	285 QEHETSWHYDQDHPYK 301	2228.74	-2.65	97.7%	71.8%
52 of 156	12/07/2006	17	291 SWHYDQDHPYKTWAYHG 307	2191.54	-1.85	95.0%	67.8%
53 of 156	11/20/2006	17	297 DHPYKTWAYHGSYETKQ 313	2111.40	-1.88	82.3%	69.0%
54 of 156	11/22/2006	15	303 WAYHGSYETKQTGSA 317	1685.40	-1.19	92.7%	70.7%
55 of 156	12/21/2006	17	307 GSYETKQTGSASSMGNG 323	1661.13	-1.07	95.5%	81.3%
56 of 156	12/21/2006	17	312 KQTGSASSMGNGVVRLL 328	1705.60	0	89.0%	74.1%
57 of 156	12/29/2006	17	318 SSMGNGVVRLLTKPWDV 334	1859.14	0.06	96.7%	74.1%
58 of 156	12/27/2006	17	324 VVRLLTKPWDVVPMTQ 340	1981.40	0.56	96.6%	75.1%
59 of 156	12/28/2006	17	330 KPWDVVPMTQMAMTDT 346	1950.20	-0.03	97.4%	68.8%
60 of 156	01/19/2007	17	336 PMVTQMAMTDTTPFGQQ 352	1883.20	-0.35	81.7%	73.0%
61 of 156	11/28/2006	17	342 AMTDTTPFGQQRVFKEK 358	1984.60	-0.99	83.7%	58.6%
62 of 156	11/29/2006	17	348 PFGQQRVFKEKVDTRTQ 364	2064.86	-1.39	85.5%	66.1%
63 of 156	11/29/2006	17	354 VFKEKVDTRTQEPKEGT 370	1992.74	-1.56	92.4%	60.5%
64 of 156	11/29/2006	17	360 DTRTQEPKEGTKKLMKI 376	2003.14	-1.65	86.4%	62.7%
65 of 156	12/21/2006	17	366 PKEGTKKLMKITAEWLW 382	2059.66	-0.71	93.4%	60.9%
66 of 156	12/19/2006	17	372 KLMKITAEWLWKELGKK 388	2101.66	-0.58	96.3%	70.1%
67 of 156	12/08/2006	16	378 AEWLWKELGKKKTPRM 393	2001.40	-1.27	87.4%	61.1%
68 of 156	01/30/2007	17	383 KELGKKKTPRMCTREEF 399	2081.26	-1.62	95.3%	66.0%
69 of 156	12/13/2006	16	389 KTPRMCTREEFTRKVR 404	2038.74	-1.57	94.1%	67.0%
70 of 156	12/21/2006	17	394 CTREEFTRKVRSAALG 410	1938.20	-0.8	91.2%	64.2%
71 of 156	12/21/2006	17	400 TRKVRSAALGAIFTDE 416	1849.00	-0.31	96.5%	74.1%
72 of 156	12/14/2006	17	406 NAALGAIFTDENKWKSA 422	1836.47	-0.37	93.2%	82.1%
73 of 156	12/18/2006	17	412 IFTDENKWKSAAREAVED 428	2038.20	-1.21	83.6%	71.2%
74 of 156	12/11/2006	17	418 KWKSAREAVEDSRFWEL 434	2137.80	-1.16	91.2%	69.7%
75 of 156	12/06/2006	17	423 REAVEDSRFWELVDKER 439	2164.86	-1.37	95.9%	74.8%
76 of 156	12/04/2006	17	429 SRFWELVDKERNLHLEG 445	2128.46	-1.02	97.4%	76.9%
77 of 156	01/08/2007	17	435 VDKERNLHLEGKGETCV 451	1973.40	-0.77	90.8%	69.2%

Table 1

Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
78 of 156	12/18/2006	17	441 LHLEGGKCTCVYNNMMGK 457	1956.20	-0.22	82.9%	64.1%
79 of 156	01/11/2007	17	447 CETCVYNNMMGKREKKLG 463	1989.94	-0.75	94.2%	59.6%
80 of 156	12/11/2006	17	453 NMMGKREKKLGEFGKAK 469	1952.86	-1.38	89.4%	45.7%
81 of 156	11/30/2006	17	458 REKKLGEFGKAKGSRAI 474	1875.66	-1.11	98.1%	67.2%
82 of 156	12/21/2006	17	463 GEFKAKGSRAIWYMWL 479	2000.46	-0.25	91.5%	40.1%
83 of 156	01/11/2007	17	469 KGSRAIWYMWLGARFLE 485	2084.74	-0.04	92.9%	63.2%
84 of 156	02/02/2007	17	475 WYMWLGARFLEFEALGF 491	2136.34	0.58	80.3%	78.8%
85 of 156	01/05/2007	17	481 ARFLEFEALGFLNEDHW 497	2094.40	-0.18	82.4%	59.5%
86 of 156	01/10/2007	17	486 FEALGFLNEDHWFSREN 502	2111.54	-0.76	89.6%	89.5%
87 of 156	01/09/2007	17	492 LNEHDWFSRENSLSGVE 508	2019.00	-1.05	91.8%	72.4%
88 of 156	01/10/2007	17	498 FSRENSLSGVEGEGHLK 514	1845.94	-0.86	91.6%	67.7%
89 of 156	01/10/2007	17	504 LSGVEGEGHLKGLGYLR 520	1841.14	0.09	94.8%	78.2%
90 of 156	01/11/2007	17	509 GEGLHKLGYILRDVSKK 525	1913.00	-0.56	92.1%	69.4%
91 of 156	01/12/2007	17	515 LGYILRDVSKKEGGAMY 531	1900.06	-0.23	95.4%	68.4%
92 of 156	01/12/2007	17	521 DVSKKEGGAMYADDTAG 537	1714.60	-0.84	94.7%	79.5%
93 of 156	01/19/2007	17	527 GGAMYADDTAGWDTRIT 543	1800.27	-0.51	84.3%	77.4%
94 of 156	01/22/2007	17	533 DDTAGWDTRITLEDLKN 549	1963.14	-1.11	80.5%	62.8%
95 of 156	12/21/2006	17	539 DTRITLEDLKN EEMVTN 555	2020.74	-0.99	87.8%	75.5%
96 of 156	11/13/2006	17	544 LEDLKN EEMVTNHMEGE 560	2017.94	-1.21	86.7%	67.2%
97 of 156	01/12/2007	17	549 NEEMVTNHMEGEHKKLA 565	1997.66	-1.34	95.4%	70.6%
98 of 156	01/11/2007	17	555 NHMEGEHKKLA E AIFKL 571	1994.74	-0.71	98.7%	62.3%
99 of 156	01/26/2007	17	561 HKKLA E AIFKLT YQNKV 577	2031.80	-0.51	93.7%	57.1%
100 of 156	01/16/2007	16	567 AIFKLT YQNKV V R VQR 582	1963.54	-0.24	98.6%	62.4%
101 of 156	01/12/2007	17	572 TYQNKV V R VQR PTPRGT 588	2000.20	-1.31	98.0%	61.5%
102 of 156	01/19/2007	16	578 V R VQR PTPRGT VMDII 593	1838.20	-0.12	86.1%	56.2%
103 of 156	01/16/2007	17	583 PTPRGT VMDII SRRDQR 599	1998.06	-1.13	98.6%	56.7%
104 of 156	01/19/2007	17	589 VMDII SRRDQR GSGQVG 605	1873.66	-0.65	77.2%	59.2%
105 of 156	01/19/2007	17	595 RRDQR GSGQVG T YGLNT 611	1865.54	-1.45	98.9%	70.3%
106 of 156	01/19/2007	17	601 SGQVG T YGLNT F T NMEA 617	1790.07	-0.29	94.4%	77.1%
107 of 156	01/19/2007	17	607 YGLNT F T NMEA QL RQM 623	2331.13	-0.27	96.5%	84.7%
108 of 156	01/19/2007	17	613 TNMEA QL RQMEGEGVF 629	1953.40	-0.36	91.3%	87.7%
109 of 156	01/22/2007	17	619 LIRQMEGEGVF KSIQHL 635	1985.14	-0.1	83.2%	69.7%
110 of 156	01/19/2007	17	625 GEGVF KSIQH LTVTEEI 641	1886.74	-0.01	82.6%	57.6%
111 of 156	02/21/2007	17	631 SIQH LTVTEEI A VQNWL 647	1981.54	0.18	82.9%	55.6%
112 of 156	01/19/2007	17	637 VTEEI A VQNW LARVGRE 653	1970.60	-0.24	90.5%	74.2%
113 of 156	01/19/2007	17	643 VQNW LARVGRERLSRMA 659	2042.20	-0.54	94.9%	78.6%
114 of 156	01/25/2007	16	649 RVGRERLSRMAISGDD 664	1818.33	-0.92	92.1%	70.3%
115 of 156	01/19/2007	17	654 RLSRMAISGDDCVVKPL 670	1859.80	0.19	84.2%	80.4%
116 of 156	01/19/2007	16	660 ISGDDCVVKPLDDRFA 675	1750.06	-0.09	94.1%	74.5%
117 of 156	01/19/2007	17	665 CVVKPLDDRFA SALTAL 681	1818.47	0.71	95.3%	76.9%
118 of 156	01/19/2007	17	671 DDRFA SALTALNDMGKV 687	1823.40	-0.14	95.0%	66.9%
119 of 156	12/18/2006	17	677 ALTALNDMGKVRKDIQQ 693	1901.00	-0.54	86.9%	73.7%
120 of 156	12/08/2006	17	683 DMGKVRKDIQQWEP SRG 699	2030.60	-1.64	81.6%	71.3%
121 of 156	12/06/2006	17	689 KDIQQWEP SRGWN DWTQ 705	2174.46	-2.04	91.9%	58.8%
122 of 156	12/07/2006	15	694 WEP SRGWN DWTQ VPF 708	1905.33	-1.29	94.0%	70.2%
123 of 156	12/06/2006	17	698 RGWN DWTQ VPFCSHHFH 714	2153.94	-1.04	86.4%	60.1%
124 of 156	01/19/2007	17	704 TQVPFCSHHFHELIMKD 720	2069.14	-0.27	87.3%	46.2%
125 of 156	01/24/2007	17	710 SHHFHELIMKDGRVLVV 726	2017.14	0.19	94.4%	65.4%
126 of 156	01/22/2007	17	716 LIMKDGRVLVPCR NQD 732	1956.74	0.01	89.7%	48.2%
127 of 156	01/19/2007	17	722 RVLVPCR NQDELIGRA 738	1938.46	-0.03	93.5%	68.1%
128 of 156	01/19/2007	17	728 CRNQDELIGRARISQGA 744	1886.74	-0.81	88.4%	59.8%
129 of 156	01/24/2007	17	734 LIGRARISQGAGWSLRE 750	1870.06	-0.24	80.3%	45.5%

Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
130 of 156	01/22/2007	17	740 ISQGAGWSLRETACL GK 756	1777.66	-0.09	83.0%	45.5%
131 of 156	01/23/2007	17	746 WSLRETACL GKSYAQM W 762	2030.20	-0.33	87.9%	59.4%
132 of 156	12/21/2006	17	752 ACL GKSYAQM WSLMYFH 768	2036.34	0.25	91.1%	74.8%
133 of 156	12/21/2006	17	758 YAQM WSLMYFHRRDLRL 774	2286.46	-0.48	96.3%	59.2%
134 of 156	12/22/2006	16	764 LMYFHRRDLRLAANA I 779	1960.46	0.06	93.7%	47.8%
135 of 156	12/22/2006	15	769 RRDRLAANAICSA V 783	1628.74	0.31	85.4%	69.3%
136 of 156	12/19/2006	16	773 RLAANAICSAVPSHW V 788	1694.86	0.69	92.0%	67.7%
137 of 156	12/22/2006	17	778 AICSAVPSHWVPTSRT T 794	1813.00	0.16	99.7%	71.2%
138 of 156	12/18/2006	17	784 PSHWVPTSRTTWSIHA K 800	1991.54	-0.81	85.3%	58.5%
139 of 156	12/14/2006	17	790 TSRTTWSIHA KHEWMT T 806	2073.54	-1	92.6%	27.1%
140 of 156	01/30/2007	17	796 SIHA KHEWMTTEDML T V 812	2028.34	-0.38	94.3%	72.3%
141 of 156	12/27/2006	17	801 HEWMTTEDMLTVWNR V W 817	2234.86	-0.62	83.5%	69.4%
142 of 156	01/23/2007	16	806 TEDMLTVWNRVWIQEN 821	2033.26	-0.63	80.4%	82.2%
143 of 156	12/11/2006	17	811 TVWNRVWIQENPWME DK 827	2231.66	-1.15	80.7%	66.1%
144 of 156	12/11/2006	17	817 WIQENPWME DKTPVES W 833	2175.54	-1.28	91.2%	64.1%
145 of 156	12/11/2006	17	823 WMEDKTPVESWEEI P Y L 839	2152.46	-0.87	82.8%	72.0%
146 of 156	12/11/2006	17	829 PVESWEEI P Y LGKRED Q 845	2074.86	-1.38	92.4%	80.7%
147 of 156	12/08/2006	16	833 WEEI P Y LGKREDQW C G 848	2009.40	-1.29	95.6%	70.7%
148 of 156	12/14/2006	17	838 YLGKREDQW C G S L I G L T 854	1939.40	-0.32	83.6%	63.5%
149 of 156	02/09/2007	17	844 DQW C G S L I G L T S R A T W A 860	1864.47	0.06	80.5%	71.5%
150 of 156	12/27/2006	17	850 L I G L T S R A T W A K N I Q T A 866	1844.34	0.14	93.1%	77.3%
151 of 156	12/22/2006	16	856 R A T W A K N I Q T A I N Q V R 871	1870.06	-0.66	96.6%	79.3%
152 of 156	12/22/2006	17	861 K N I Q T A I N Q V R S L I G N E 877	1898.06	-0.47	89.4%	86.4%
153 of 156	12/21/2006	17	867 I N Q V R S L I G N E E Y T D Y M 883	2045.66	-0.65	84.8%	55.0%
154 of 156	12/13/2006	17	873 L I G N E E Y T D Y M P S M K R F 889	2094.46	-0.8	88.7%	65.2%
155 of 156	02/02/2007	17	879 Y T D Y M P S M K R F R K E E E E 895	2238.46	-1.96	97.8%	55.1%
156 of 156	12/18/2006	16	885 S M K R F R K E E E E A G V L W 900	1994.86	-1.15	80.8%	70.2%

<sup>a</sup>% full-length  
<sup>b</sup>Remainder is salt and water

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 156	Expected		1.00	1.00		2.00	4.00		1.00	2.00	2.00				1.00	2.00	1.00		
	Actual		0.98	0.98		2.00	4.12		1.06	2.01	2.12				1.00	2.03	0.00 <sup>a</sup>		
2 of 156	Expected	1.00	1.00	1.00		2.00	3.00			3.00	3.00				1.00	1.00	1.00		
	Actual	1.07	1.03	1.02		2.04	3.05			2.96	3.08				0.95	1.01	0.00 <sup>a</sup>		
3 of 156	Expected	1.00	1.00	1.00		2.00	1.00		1.00	2.00	3.00		1.00		2.00		1.00	1.00	
	Actual	1.01	1.08	0.92		1.92	1.07		1.04	1.92	2.88		1.00		1.73		0.00 <sup>a</sup>	1.00	
4 of 156	Expected	1.00		1.00		3.00	2.00		2.00	1.00	3.00		1.00		2.00			1.00	
	Actual	1.00		1.01		2.78	2.09		2.09	1.06	3.00		0.89		1.70			1.02	
5 of 156	Expected		1.00	1.00		4.00	1.00		2.00		2.00		1.00		2.00	1.00		1.00	1.00
	Actual		1.07	1.01		3.74	1.05		2.01		2.04		0.97		1.73	1.00		0.97	1.01
6 of 156	Expected	1.00	1.00	1.00		3.00	2.00		2.00	1.00	3.00				1.00	1.00			1.00
	Actual	1.09	1.06	0.99		2.92	2.02		1.98	1.01	2.92				0.89	0.98			0.98
7 of 156	Expected	1.00	2.00	1.00		4.00	2.00		2.00	1.00	2.00					1.00			1.00
	Actual	1.03	1.98	1.01		3.81	2.15		1.93	1.01	2.03					1.03			0.96
8 of 156	Expected	2.00	1.00	1.00		2.00	2.00	2.00	1.00	1.00	2.00					2.00			1.00
	Actual	1.78	1.05	1.04		1.83	2.01	2.08	0.97	1.03	2.06					2.05			1.05

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)
9 of 156	Expected	2.00	2.00	1.00		1.00	2.00	2.00	1.00		2.00				2.00	1.00			1.00
	Actual	1.92	1.97	1.06		0.97	1.97	1.98	1.08		2.01				2.03	1.06			1.03
10 of 156	Expected	2.00	2.00	1.00		1.00	1.00	2.00		1.00	1.00		1.00		2.00		1.00		2.00
	Actual	2.00	1.94	1.00		0.97	1.08	1.95		1.03	1.06		1.03		1.73		0.00 <sup>a</sup>		1.77
11 of 156	Expected	1.00	3.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00		1.00	1.00	1.00		2.00
	Actual	1.00	3.08	1.05		1.00	1.07			0.97	1.06	1.03	0.98		0.97	1.00	0.00 <sup>a</sup>		1.94
12 of 156	Expected		2.00	1.00		2.00	1.00			1.00	1.00	1.00	1.00	1.00		1.00	1.00		4.00
	Actual		1.96	1.02		2.01	1.03			1.04	1.01	0.98	1.06	0.95		1.05	0.00 <sup>a</sup>		3.74 <sup>b</sup>
13 of 156	Expected		2.00	2.00	1.00	1.00	3.00			1.00	1.00	1.00		1.00		1.00			3.00
	Actual		2.11	1.91	0.00 <sup>c</sup>	0.97	2.87			1.01	1.05	1.05		1.36 <sup>c</sup>		0.85			2.86 <sup>b</sup>
14 of 156	Expected		1.00	1.00	1.00	1.00	5.00			1.00	1.00			1.00	1.00		1.00	1.00	2.00
	Actual		1.06	0.95	0.00 <sup>c</sup>	0.96	4.81			1.00	1.06			1.21 <sup>c</sup>	0.90		0.00 <sup>a</sup>	1.01	1.63 <sup>b</sup>
15 of 156	Expected		1.00	1.00	2.00		6.00			2.00	1.00			0.00	1.00		1.00	2.00	
	Actual		1.03	0.94	0.00 <sup>c</sup>		5.95			1.97	1.02			0.78 <sup>c</sup>	0.88		0.00 <sup>a</sup>	2.06	
16 of 156	Expected		1.00	1.00	1.00	1.00	4.00			1.00	2.00			0.00	1.00		1.00	2.00	2.00
	Actual		1.01	0.99	0.00 <sup>c</sup>	1.00	3.91			1.02	1.99			0.31 <sup>c</sup>	0.88		0.00 <sup>a</sup>	2.05	1.95
17 of 156	Expected		1.00	1.00	1.00	1.00	5.00			2.00	3.00					1.00			2.00
	Actual		1.03	0.95	0.00 <sup>c</sup>	1.01	5.03			2.07	3.00					1.04			1.97
18 of 156	Expected		1.00			3.00	4.00	1.00		1.00	2.00			1.00		1.00			2.00
	Actual		1.00			2.88	3.91	1.08		1.05	1.99			1.02		1.01			1.91
19 of 156	Expected					2.00	4.00	1.00	1.00	1.00	1.00	1.00		3.00	1.00	2.00			
	Actual					1.96	3.93	1.09	1.06	1.04	1.02	1.02		2.94	0.99	1.93			
20 of 156	Expected			1.00		2.00	2.00	1.00	1.00	1.00		1.00		3.00	1.00	1.00	1.00	1.00	1.00
	Actual			1.00		1.97	1.98	1.05	1.03	1.10		0.97		2.83	0.99	0.99	0.00 <sup>a</sup>	1.05	1.04
21 of 156	Expected		1.00	1.00		1.00	2.00		1.00	2.00		1.00		1.00	2.00	1.00	1.00	1.00	2.00
	Actual		1.05	0.99		0.96	1.97		1.04	2.09		0.95		1.02	1.75	0.94	0.00 <sup>a</sup>	1.06	2.03
22 of 156	Expected		1.00	2.00		1.00	2.00			2.00			2.00		1.00	1.00	1.00		3.00
	Actual		1.07	1.99		0.99	2.07			1.94			2.00		1.03	1.05	0.00 <sup>a</sup>		3.03
23 of 156	Expected		1.00	2.00	1.00	2.00	1.00			1.00	1.00		2.00	2.00	1.00	1.00			2.00
	Actual		1.07	2.06	0.00 <sup>c</sup>	2.01	1.01			1.03	0.95		2.05	2.36 <sup>c</sup>	0.97	1.02			2.05
24 of 156	Expected			3.00	2.00	1.00			1.00	2.00	1.00		2.00	2.00		2.00			1.00
	Actual			2.87	0.00 <sup>c</sup>	0.96			1.04	2.05	1.04		2.06	2.80 <sup>c</sup>		1.99			1.00
25 of 156	Expected			3.00	2.00	2.00	1.00		1.00	2.00	1.00			2.00	2.00	1.00			
	Actual			3.19	0.00 <sup>c</sup>	1.75	1.07		1.11	2.10	0.89			2.74 <sup>c</sup>	1.89	1.00			
26 of 156	Expected	1.00		2.00	1.00	2.00	2.00		1.00	2.00				2.00	2.00	1.00			1.00
	Actual	1.04		1.99	0.00 <sup>c</sup>	1.95	2.02		1.05	2.11				2.38 <sup>c</sup>	1.80	0.94			0.98
27 of 156	Expected	1.00	2.00	1.00		2.00	2.00			1.00				2.00	2.00	2.00			2.00
	Actual	1.08	2.03	0.91		1.97	2.11			1.03				1.84	1.72	2.02			2.07
28 of 156	Expected	1.00	2.00	2.00		2.00	1.00			3.00				1.00		2.00			3.00
	Actual	1.01	2.08	1.99		1.95	0.99			3.07				0.98		1.65			2.98
29 of 156	Expected		2.00	5.00		1.00				4.00						2.00	1.00		2.00
	Actual		2.05	4.80		1.00				4.16						2.08	0.00 <sup>a</sup>		1.97
30 of 156	Expected			5.00	1.00	2.00			1.00	2.00	1.00		1.00	0.00		1.00	1.00		2.00
	Actual			3.96	0.00 <sup>c</sup>	1.92			1.09	1.94	1.06		1.02	0.54 <sup>c</sup>		0.98	0.00 <sup>a</sup>		1.94
31 of 156	Expected			4.00	1.00	1.00			1.00	2.00	1.00	1.00	1.00	1.00		1.00		1.00	1.00
	Actual			4.03	0.00 <sup>c</sup>	0.97			0.96	2.00	1.05	0.99	1.05	1.25 <sup>c</sup>		1.00		1.03	0.99
32 of 156	Expected			1.00	1.00	2.00			2.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00		1.00	2.00
	Actual			1.02	0.00 <sup>c</sup>	1.98			1.93 <sup>b</sup>	1.06	0.98	0.92	1.05	2.19 <sup>c</sup>	0.90	0.97		1.05	1.88 <sup>b</sup>
33 of 156	Expected	1.00		1.00		3.00			1.00	2.00	1.00	2.00		2.00	1.00			1.00	2.00
	Actual	1.02		1.02		2.99			0.95 <sup>b</sup>	2.07	1.02	1.82		2.01	0.91			1.03	2.04
34 of 156	Expected	2.00	1.00			3.00	2.00		1.00	1.00	2.00	1.00		1.00	1.00			1.00	1.00
	Actual	2.07	1.03			3.14	2.10		0.93 <sup>b</sup>	1.05	2.05	0.89		1.05	0.77			1.00	0.90 <sup>b</sup>

**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)	
35 of 156	Expected	2.00	2.00	1.00		2.00	2.00			3.00	1.00	1.00		1.00				1.00	1.00	
	Actual	1.89	2.05	0.99		1.90	1.97			3.11	1.07	0.99		0.97				1.04	1.00	
36 of 156	Expected	1.00	2.00	2.00			2.00	1.00		2.00	1.00			1.00	2.00	1.00			1.00	1.00
	Actual	1.02	2.05	1.96			2.00	1.00		2.09	1.02			0.93	1.74	0.95			1.07	1.00
37 of 156	Expected		2.00	2.00		1.00		1.00		2.00		1.00		1.00	2.00	1.00	1.00	1.00	1.00	1.00
	Actual		1.97	2.00		1.04		1.03		2.06		0.98		0.98	1.84	0.99	0.00 <sup>a</sup>	0.98	1.04	1.00
38 of 156	Expected	1.00	1.00	3.00		1.00	1.00	1.00		1.00		1.00			4.00	1.00	1.00	1.00	1.00	
	Actual	1.02	0.97	3.06		0.95	1.03	1.02		1.03		0.94			3.67	0.99	0.00 <sup>a</sup>	1.07	1.00	
39 of 156	Expected	1.00		2.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00			4.00			1.00	1.00	2.00
	Actual	0.98		2.03		0.96	1.04	1.06	0.95 <sup>b</sup>	1.05		0.93			3.62			0.00 <sup>a</sup>	1.07	1.89 <sup>b</sup>
40 of 156	Expected	1.00	1.00	3.00			1.00		2.00			2.00			5.00					2.00
	Actual	1.04	0.99	3.03			1.08		2.05			1.97			4.74					2.01
41 of 156	Expected		2.00	2.00					3.00	1.00		2.00	1.00		3.00	1.00				2.00
	Actual		2.04	2.08					2.97 <sup>b</sup>	1.05		1.91	1.08		3.03	1.03				1.94 <sup>b</sup>
42 of 156	Expected	1.00	3.00	1.00				1.00	2.00	1.00	2.00	3.00	1.00		1.00	1.00				
	Actual	1.05	2.95	0.99				1.04	2.06	1.04	2.02	2.96	1.05		0.96	1.00				
43 of 156	Expected	1.00	2.00	2.00		1.00		1.00	1.00		2.00	1.00	1.00	1.00		2.00		1.00	1.00	1.00
	Actual	0.99	2.03	1.98		1.00		1.01	1.04		1.98	1.01	1.02	0.97		2.02		1.03	0.97	1.00
44 of 156	Expected	1.00	1.00	2.00		1.00	2.00	1.00		1.00	2.00			1.00	1.00	2.00			1.00	1.00
	Actual	1.03	1.04	2.02		0.97	2.05	1.02		1.04	2.02			0.97	0.94	2.03			1.06	1.00
45 of 156	Expected		1.00	3.00		2.00	3.00		2.00	1.00				1.00	1.00	1.00			1.00	1.00
	Actual		1.01	3.08		1.97	3.06		2.02	1.08				0.92	0.87	0.97			1.04	0.98
46 of 156	Expected		1.00	2.00		2.00	3.00		3.00	2.00				1.00	2.00	1.00				
	Actual		0.99	2.05		2.03	3.11		3.00	2.04				0.97	1.77	0.99				
47 of 156	Expected		1.00	3.00		2.00	2.00		5.00	1.00	1.00			1.00	1.00					
	Actual		1.04	2.95		2.00	2.00		4.84 <sup>b</sup>	1.03	1.05			0.93	0.82					
48 of 156	Expected		1.00	2.00		2.00	1.00		5.00	1.00	3.00			1.00	1.00					
	Actual		1.02	2.02		2.04	1.08		5.04	1.03	2.93			0.95	0.99					
49 of 156	Expected		1.00	1.00		4.00	1.00	1.00	4.00		3.00					1.00				
	Actual		1.03	1.04		3.96	0.99	1.01	4.01		3.05					0.97				
50 of 156	Expected		1.00	1.00		5.00		2.00	2.00		2.00				1.00	1.00	1.00	1.00		
	Actual		1.01	1.08		4.98		2.05	1.88		2.03				0.87	0.96	0.00 <sup>a</sup>	1.02		
51 of 156	Expected			2.00		4.00		3.00			2.00			1.00	1.00	1.00	1.00	2.00		
	Actual			1.97		4.08		3.01			2.01			0.97	0.68	1.01	0.00 <sup>a</sup>	2.10		
52 of 156	Expected	1.00		2.00		1.00	1.00	3.00			1.00			1.00	1.00	1.00	2.00	3.00		
	Actual	1.01		2.03		1.01	1.05	3.04			1.00			1.04	1.01	0.97	0.00 <sup>a</sup>	3.02		
53 of 156	Expected	1.00		1.00		2.00	1.00	2.00			2.00			1.00	1.00	2.00	1.00	3.00		
	Actual	1.07		1.03		2.06	0.98	1.97			2.02			0.99	0.81	1.97	0.00 <sup>a</sup>	2.91		
54 of 156	Expected	2.00				2.00	2.00	1.00			1.00				2.00	2.00	1.00	2.00		
	Actual	2.01				2.07	2.12	1.04			1.05				1.89	1.96	0.00 <sup>a</sup>	2.03		
55 of 156	Expected	1.00		1.00		2.00	4.00				1.00	1.00			4.00	2.00		1.00		
	Actual	1.00		1.07		1.98	4.16				0.98	1.06			3.93	1.87		1.08		
56 of 156	Expected	1.00	1.00	1.00		1.00	3.00			2.00	1.00	1.00			3.00	1.00				2.00
	Actual	0.99	1.04	1.01		1.02	3.06			2.07	1.03	1.09			2.85	0.99				1.93 <sup>b</sup>
57 of 156	Expected		1.00	2.00			2.00			2.00	1.00	1.00		1.00	2.00	1.00	1.00			3.00
	Actual		1.05	2.08			2.05			2.08	1.09	0.98		1.01	1.97	0.97	0.00 <sup>a</sup>			2.84 <sup>b</sup>
58 of 156	Expected		1.00	1.00		1.00				2.00	1.00	1.00		2.00		2.00	1.00			5.00
	Actual		1.06	0.98		1.07				1.96	1.02	1.06		1.97		1.86	0.00 <sup>a</sup>			4.85 <sup>b</sup>
59 of 156	Expected	1.00		2.00		1.00					1.00	3.00		2.00		3.00	1.00			3.00
	Actual	1.02		2.03		1.04					1.05	2.96		1.99		2.99	0.00 <sup>a</sup>			2.84 <sup>b</sup>
60 of 156	Expected	1.00		1.00		3.00	1.00					3.00	1.00	2.00		4.00				1.00
	Actual	0.98		0.96		3.07	0.98					2.97	1.07	2.05		3.95				1.03
61 of 156	Expected	1.00	1.00	1.00		3.00	1.00				2.00	1.00	2.00	1.00		3.00				1.00
	Actual	0.99	1.00	1.02		3.05	1.00				2.00	1.04	2.09	1.00		3.00				0.94

**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)
62 of 156	Expected		2.00	1.00		4.00	1.00				2.00		2.00	1.00		2.00			2.00
	Actual		2.05	1.01		4.10	1.08				2.07		2.04	0.97		1.93			1.85
63 of 156	Expected		1.00	1.00		4.00	1.00				3.00		1.00	1.00		3.00			2.00
	Actual		1.08	0.97		4.20	1.00				3.12		1.01	0.96		2.96			1.91
64 of 156	Expected		1.00	1.00		3.00	1.00		1.00	1.00	4.00	1.00		1.00		3.00			
	Actual		1.07	1.07		2.97	1.05		0.99	0.95	4.18	0.97		0.97		2.83			
65 of 156	Expected	1.00				2.00	1.00		1.00	2.00	4.00	1.00		1.00		2.00	2.00		
	Actual	1.01				2.13	1.05		1.01	2.02	4.11	0.94		1.04		1.79	0.00 <sup>a</sup>		
66 of 156	Expected	1.00				2.00	1.00		1.00	3.00	5.00	1.00				1.00	2.00		
	Actual	0.95				2.05	1.08		0.93	2.96	5.06	1.01				0.86	0.00 <sup>a</sup>		
67 of 156	Expected	1.00	1.00			2.00	1.00			2.00	4.00	1.00		1.00		1.00	2.00		
	Actual	1.01	1.03			1.96	1.02			1.93	4.04	0.99		1.04		1.00	0.00 <sup>a</sup>		
68 of 156	Expected		2.00		1.00	3.00	1.00			1.00	4.00	1.00	1.00	1.00		2.00			
	Actual		1.99		0.00 <sup>c</sup>	3.01	1.04			1.01	3.99	0.99	1.02	1.69 <sup>c</sup>		1.97			
69 of 156	Expected		4.00		1.00	2.00					2.00	1.00	1.00	1.00		3.00			1.00
	Actual		3.89		0.00 <sup>c</sup>	2.05					1.79	1.08	1.09	1.52 <sup>c</sup>		2.67			0.94
70 of 156	Expected	2.00	3.00	1.00	1.00	2.00	1.00			1.00	1.00		1.00	0.00	1.00	2.00			1.00
	Actual	2.05	3.12	1.00	0.00 <sup>c</sup>	1.99	1.06			1.01	1.00		1.08	0.60 <sup>c</sup>	0.97	1.95			0.98
71 of 156	Expected	3.00	2.00	2.00		1.00	1.00		1.00	1.00	1.00		1.00		1.00	2.00			1.00
	Actual	2.88	2.08	2.06		1.04	1.01		1.00	1.08	1.04		1.04		0.99	1.95			0.93
72 of 156	Expected	4.00		3.00		1.00	1.00		1.00	1.00	2.00		1.00		1.00	1.00	1.00		
	Actual	4.00		3.04		1.03	1.09		0.97	1.02	1.97		1.07		0.97	0.99	0.00 <sup>a</sup>		
73 of 156	Expected	2.00	1.00	3.00		3.00			1.00		2.00		1.00		1.00	1.00	1.00		1.00
	Actual	2.08	1.05	3.06		3.03			1.02		2.07		1.03		0.97	0.98	0.00 <sup>a</sup>		0.98
74 of 156	Expected	2.00	2.00	1.00		3.00				1.00	2.00		1.00		2.00		2.00		1.00
	Actual	2.02	1.99	1.08		3.09				1.03	1.88		1.07		1.91		0.00 <sup>a</sup>		0.98
75 of 156	Expected	1.00	3.00	2.00		4.00				1.00	1.00		1.00		1.00	1.00	1.00		2.00
	Actual	0.99	3.01	2.02		4.07				1.04	1.06		1.02		0.96		0.00 <sup>a</sup>		1.97
76 of 156	Expected		2.00	2.00		3.00	1.00	1.00		3.00	1.00		1.00		1.00		1.00		1.00
	Actual		1.98	2.04		2.96	1.05	1.00		3.01	1.00		1.01		0.91		0.00 <sup>a</sup>		0.94
77 of 156	Expected		1.00	2.00	2.00	3.00	1.00	1.00		2.00	2.00			0.00		1.00			2.00
	Actual		1.05	2.06	0.00 <sup>c</sup>	3.03	1.03	1.02		1.99	2.02			1.16 <sup>c</sup>		0.95			1.90
78 of 156	Expected			1.00	2.00	2.00	2.00	1.00		2.00	2.00	2.00		0.00		1.00		1.00	1.00
	Actual			1.03	0.00 <sup>c</sup>	2.07	2.06	1.03		2.03	2.06	1.93		1.06 <sup>c</sup>		0.93		1.03	0.93
79 of 156	Expected		1.00	1.00	2.00	2.00	2.00			1.00	3.00	2.00		0.00		1.00		1.00	1.00
	Actual		1.03	1.07	0.00 <sup>c</sup>	2.03	2.09			1.04	3.03	1.73		1.09 <sup>c</sup>		0.98		1.02	0.97
80 of 156	Expected	1.00	1.00	1.00		2.00	3.00			1.00	5.00	2.00	1.00						
	Actual	1.00	1.01	1.06		1.97	2.88			1.01	4.76	1.87	1.08						
81 of 156	Expected	2.00	2.00			2.00	3.00		1.00	1.00	4.00		1.00		1.00				
	Actual	1.99	1.82			1.95	2.90		1.07	1.06	4.16		1.04		1.03				
82 of 156	Expected	2.00	1.00			1.00	3.00	1.00	1.00	1.00	2.00	1.00	1.00		1.00		2.00	1.00	
	Actual	1.99	1.00			1.06	2.84	1.03	1.07	1.83	0.98	1.01	1.04		1.04		0.00 <sup>a</sup>	1.04	
83 of 156	Expected	2.00	2.00			1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00		1.00		2.00	1.00	
	Actual	2.02	2.03			1.06	2.05	0.94	2.07	1.02	0.97	1.01	1.01		0.99		0.00 <sup>a</sup>	1.01	
84 of 156	Expected	2.00	1.00			2.00	2.00			3.00		1.00	3.00				2.00	1.00	
	Actual	1.98	1.02			2.02	2.02			2.92		1.02	2.97				0.00 <sup>a</sup>	0.99	
85 of 156	Expected	2.00	1.00	2.00		3.00	1.00	1.00		3.00			3.00				1.00		
	Actual	1.91	1.03	2.06		2.96	1.07	0.95		3.05			2.86				0.00 <sup>a</sup>		
86 of 156	Expected	1.00	1.00	3.00		3.00	1.00	1.00		2.00			3.00		1.00		1.00		
	Actual	1.05	0.96	3.08		3.04	1.09	0.92		2.00			2.80		0.87		0.00 <sup>a</sup>		
87 of 156	Expected		1.00	3.00		3.00	1.00	1.00		2.00			1.00		3.00		1.00		1.00
	Actual		1.03	3.04		2.94	1.05	0.96		2.11			1.05		2.96		0.00 <sup>a</sup>		0.98
88 of 156	Expected		1.00	1.00		3.00	3.00	1.00		2.00	1.00		1.00		3.00				1.00
	Actual		1.00	1.03		2.93	3.05	0.98		2.16	1.01		1.01		3.01				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)
89 of 156	Expected		1.00			2.00	4.00	1.00	1.00	4.00	1.00				1.00			1.00	1.00
	Actual		1.00			1.99	3.96	0.95	0.95	3.98	1.07				0.85			1.06	0.99
90 of 156	Expected		1.00	1.00		1.00	3.00	1.00	1.00	3.00	3.00				1.00			1.00	1.00
	Actual		0.99	1.06		1.02	2.94	0.92	0.98	3.05	3.00				1.06			1.08	1.00
91 of 156	Expected	1.00	1.00	1.00		1.00	3.00		1.00	2.00	2.00	1.00			1.00			2.00	1.00
	Actual	1.04	1.02	0.98		1.01	2.91		1.01	2.03	2.01	0.99			1.03			2.02	1.00
92 of 156	Expected	3.00		3.00		1.00	3.00				2.00	1.00			1.00	1.00		1.00	1.00
	Actual	2.89		3.13		1.03	2.95				2.01	1.04			1.07	0.95		1.03	1.02
93 of 156	Expected	3.00	1.00	3.00			3.00		1.00			1.00				3.00	1.00	1.00	1.00
	Actual	2.82	0.98	3.06			2.86		1.09			1.01				3.01	0.00 <sup>a</sup>	1.05	
94 of 156	Expected	1.00	1.00	5.00		1.00	1.00		1.00	2.00	1.00					3.00	1.00		
	Actual	0.98	0.96	5.05		1.06	1.01		1.01	2.07	1.07					2.76	0.00 <sup>a</sup>		
95 of 156	Expected		1.00	4.00		3.00			1.00	2.00	1.00	1.00				3.00			1.00
	Actual		0.91	4.02		3.11			1.00	1.99	1.01	1.04				2.90			1.08
96 of 156	Expected			3.00		5.00	1.00	1.00		2.00	1.00	2.00				1.00			1.00
	Actual			3.08		4.90	0.98	0.92		2.09	1.05	1.99				1.00			1.04
97 of 156	Expected	1.00		2.00		4.00	1.00	2.00		1.00	2.00	2.00				1.00			1.00
	Actual	1.02		2.01		3.97	0.99	1.81		1.07	2.05	2.02				1.00			1.03
98 of 156	Expected	2.00		1.00		3.00	1.00	2.00	1.00	2.00	3.00	1.00	1.00						
	Actual	1.90		1.01		2.96	1.07	1.75	1.02	2.14	2.99	1.02	1.01						
99 of 156	Expected	2.00		1.00		2.00		1.00	1.00	2.00	4.00		1.00			1.00		1.00	1.00
	Actual	2.03		0.98		2.04		0.88	1.07	2.04	4.03		0.95			1.06		0.97	1.08
100 of 156	Expected	1.00	2.00	1.00		2.00			1.00	1.00	2.00		1.00			1.00		1.00	3.00
	Actual	1.01	1.79	1.09		2.02			1.03	1.09	2.06		0.96			0.96		1.05	2.78 <sup>b</sup>
101 of 156	Expected		3.00	1.00		2.00	1.00				1.00			2.00		3.00		1.00	3.00
	Actual		2.69	1.05		2.00	1.03				1.08			2.02		3.06		1.04	2.74 <sup>b</sup>
102 of 156	Expected		3.00	1.00		1.00	1.00		2.00			1.00		2.00		2.00			3.00
	Actual		2.74	1.04		1.05	1.08		1.66 <sup>b</sup>			0.94		2.00		1.98			3.12
103 of 156	Expected		4.00	2.00		1.00	1.00		2.00			1.00		2.00	1.00	2.00			1.00
	Actual		3.75	2.09		1.10	1.12		1.74 <sup>b</sup>			0.96		2.06	1.04	1.86			1.11
104 of 156	Expected		3.00	2.00		2.00	3.00		2.00			1.00			2.00				2.00
	Actual		3.06	2.04		2.13	3.07		1.76 <sup>b</sup>			1.04			2.13				1.97
105 of 156	Expected		3.00	2.00		2.00	4.00			1.00					1.00	2.00		1.00	1.00
	Actual		2.79	2.07		1.96	4.08			1.09					1.03	1.96		1.08	1.00
106 of 156	Expected	1.00		2.00		2.00	3.00			1.00		1.00	1.00		1.00	3.00		1.00	1.00
	Actual	1.02		2.10		1.95	2.92			1.05		0.97	0.99		0.92	2.85		1.06	1.00
107 of 156	Expected	1.00	1.00	2.00		3.00	1.00		1.00	2.00		2.00	1.00			2.00		1.00	
	Actual	1.07	0.94	2.03		2.84	1.03		0.97	2.07		1.98	0.97			1.74		1.03	
108 of 156	Expected	1.00	1.00	1.00		5.00	2.00		1.00	1.00		2.00	1.00			1.00			1.00
	Actual	1.00	0.88	1.06		4.99	1.97		1.00	1.06		2.02	1.02			0.75			0.99
109 of 156	Expected		1.00			4.00	2.00	1.00	2.00	2.00	1.00	1.00	1.00		1.00				1.00
	Actual		0.93			4.05	2.17	0.96	2.05	2.04	1.03	0.99	1.02		0.98				1.03
110 of 156	Expected					4.00	2.00	1.00	2.00	1.00	1.00		1.00		1.00	2.00			2.00
	Actual					4.08	2.14	0.94	2.07	1.07	1.02		1.06		0.96	1.82			2.09
111 of 156	Expected	1.00		1.00		4.00		1.00	2.00	2.00					1.00	2.00	1.00		2.00
	Actual	0.99		0.97		4.13		0.99	2.01	2.10					1.02	2.09	0.00 <sup>a</sup>		2.07
112 of 156	Expected	2.00	2.00	1.00		4.00	1.00		1.00	1.00						1.00	1.00		3.00
	Actual	2.04	1.78	0.96		4.11	1.05		1.05	1.09						0.98	0.00 <sup>a</sup>		2.95
113 of 156	Expected	2.00	4.00	1.00		2.00	1.00			2.00		1.00			1.00			1.00	2.00
	Actual	1.87	3.86	1.02		2.06	1.07			2.10		0.99			1.04		0.00 <sup>a</sup>		2.01
114 of 156	Expected	1.00	4.00	2.00		1.00	2.00		1.00	1.00		1.00			2.00				1.00
	Actual	1.06	3.86	2.05		0.99	1.92		1.00	1.05		1.06			1.99				0.98
115 of 156	Expected	1.00	2.00	2.00	1.00		1.00		1.00	2.00	1.00	1.00		1.00	2.00				2.00
	Actual	0.98	1.97	2.05	0.00 <sup>c</sup>		1.03		0.92	2.03	1.03	1.06		1.70 <sup>c</sup>	2.08				1.72 <sup>b</sup>
116 of 156	Expected	1.00	1.00	4.00	1.00		1.00		1.00	1.00	1.00		1.00	1.00	1.00				2.00
	Actual	1.01	1.04	4.09	0.00 <sup>c</sup>		1.01		0.95	1.04	0.97		1.01	1.75 <sup>c</sup>	0.83				1.89 <sup>b</sup>



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)
117 of 156	Expected	3.00	1.00	2.00	1.00					3.00	1.00		1.00	1.00	1.00	1.00			2.00
	Actual	2.93	0.99	2.10	0.00 <sup>c</sup>					3.04	1.03		1.07	1.61 <sup>c</sup>	0.91	0.86			1.75 <sup>b</sup>
118 of 156	Expected	3.00	1.00	4.00			1.00			2.00	1.00	1.00	1.00		1.00	1.00			1.00
	Actual	2.93	1.00	4.16			1.01			2.08	1.04	1.00	0.98		1.09	0.96			1.00
119 of 156	Expected	2.00	1.00	3.00		2.00	1.00		1.00	2.00	2.00	1.00				1.00			1.00
	Actual	1.95	1.02	3.14		2.00	1.01		0.99	2.06	1.94	1.01				0.99			1.01
120 of 156	Expected		2.00	2.00		3.00	2.00		1.00		2.00	1.00		1.00	1.00		1.00		1.00
	Actual		1.92	2.04		2.94	2.01		1.06		1.93	1.00		1.08	1.03		0.00 <sup>a</sup>		0.99
121 of 156	Expected		1.00	3.00		4.00	1.00		1.00		1.00			1.00	1.00	1.00	3.00		
	Actual		1.00	2.88		3.90	1.06		1.08		1.07			1.02	1.07	0.91	0.00 <sup>a</sup>		
122 of 156	Expected		1.00	2.00		2.00	1.00						1.00	2.00	1.00	1.00	3.00		1.00
	Actual		1.01	1.87		2.04	1.07						1.06	2.03	1.08	0.96	0.00 <sup>a</sup>		1.00
123 of 156	Expected		1.00	2.00	1.00	1.00	1.00	3.00					2.00	1.00	1.00	1.00	2.00		1.00
	Actual		1.04	1.91	0.00 <sup>c</sup>	1.03	1.04	2.89					2.04	1.86 <sup>c</sup>	1.03	1.06	0.00 <sup>a</sup>		0.89
124 of 156	Expected			1.00	1.00	2.00		3.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00			1.00
	Actual			1.05	0.00 <sup>c</sup>	1.84		2.95	1.03	1.09	1.00	1.04	1.97	1.62 <sup>c</sup>	0.89	0.95			0.99
125 of 156	Expected		1.00	1.00		1.00	1.00	3.00	1.00	2.00	1.00	1.00	1.00		1.00				3.00
	Actual		1.04	1.03		1.04	1.06	2.79	1.01	2.01	1.07	0.97	1.01		1.00				2.80 <sup>b</sup>
126 of 156	Expected		2.00	3.00	1.00	1.00	1.00		1.00	2.00	1.00	1.00		1.00					3.00
	Actual		1.95	3.01	0.00 <sup>c</sup>	0.98	1.02		1.00	2.06	0.99	1.03		1.60 <sup>c</sup>					2.92 <sup>b</sup>
127 of 156	Expected	1.00	3.00	2.00	1.00	2.00	1.00		1.00	2.00				1.00					3.00
	Actual	1.00	2.98	2.08	0.00 <sup>c</sup>	1.94	0.98		1.03	2.10				1.75 <sup>c</sup>					2.83 <sup>b</sup>
128 of 156	Expected	2.00	3.00	2.00	1.00	3.00	2.00		2.00	1.00				0.00	1.00				
	Actual	2.05	2.96	2.06	0.00 <sup>c</sup>	2.94	2.00		2.07	1.04				0.72 <sup>c</sup>	1.00				
129 of 156	Expected	2.00	3.00			2.00	3.00		2.00	2.00					2.00		1.00		
	Actual	2.08	3.03			1.95	3.07		2.01	2.01					2.06		0.00 <sup>a</sup>		
130 of 156	Expected	2.00	1.00		1.00	2.00	3.00		1.00	2.00	1.00			0.00	2.00	1.00	1.00		
	Actual	2.10	1.00		0.00 <sup>c</sup>	1.98	2.98		1.08	2.01	1.00			0.55 <sup>c</sup>	2.02	1.01	0.00 <sup>a</sup>		
131 of 156	Expected	2.00	1.00		1.00	2.00	1.00			2.00	1.00	1.00		0.00	2.00	1.00	2.00	1.00	
	Actual	1.97	0.99		0.00 <sup>c</sup>	1.95	1.01			2.06	1.03	1.04		0.78 <sup>c</sup>	2.14	1.02	0.00 <sup>a</sup>	0.99	
132 of 156	Expected	2.00			1.00	1.00	1.00	1.00		2.00	1.00	2.00	1.00	0.00	2.00		1.00	2.00	
	Actual	1.92			0.00 <sup>c</sup>	0.98	0.99	1.04		1.97	1.05	1.93	1.08	0.74 <sup>c</sup>	2.05		0.00 <sup>a</sup>	2.05	
133 of 156	Expected	1.00	3.00	1.00		1.00		1.00		3.00		2.00	1.00		1.00		1.00	2.00	
	Actual	1.01	2.91	1.07		1.01		0.93		3.02		2.04	1.05		1.06		0.00 <sup>a</sup>	1.95	
134 of 156	Expected	3.00	3.00	2.00				1.00	1.00	3.00		1.00	1.00					1.00	
	Actual	2.77	2.88	1.97				1.01	1.02	2.95		1.04	1.00					1.07	
135 of 156	Expected	4.00	3.00	2.00	1.00				1.00	2.00				0.00	1.00				1.00
	Actual	3.88	2.88	2.05	0.00 <sup>c</sup>				0.76	2.04				0.72 <sup>c</sup>	1.08				1.05
136 of 156	Expected	4.00	1.00	1.00	1.00			1.00	1.00	1.00				1.00	2.00		1.00		2.00
	Actual	3.77	0.99	1.05	0.00 <sup>c</sup>			0.98	0.86	1.01				1.74 <sup>c</sup>	1.92		0.00 <sup>a</sup>		2.04
137 of 156	Expected	2.00	1.00		1.00			1.00	1.00					2.00	3.00	3.00	1.00		2.00
	Actual	1.98	1.08		0.00 <sup>c</sup>			1.01	0.98					2.84 <sup>c</sup>	2.83	2.84	0.00 <sup>a</sup>		2.08
138 of 156	Expected	1.00	1.00					2.00	1.00		1.00			2.00	3.00	3.00	2.00		1.00
	Actual	1.04	1.05					1.95	1.09		1.03			2.04	2.97	2.87	0.00 <sup>a</sup>		0.98
139 of 156	Expected	1.00	1.00			1.00	2.00	1.00		1.00	1.00				2.00	5.00	2.00		
	Actual	1.06	1.04			0.99	1.87	1.10		1.02	0.99				2.15	4.72	0.00 <sup>a</sup>		
140 of 156	Expected	1.00		1.00		2.00	2.00	1.00	1.00	1.00	2.00				1.00	3.00	1.00		1.00
	Actual	0.99		1.08		1.91	1.81	0.97	1.08	1.08	1.95				1.08	2.83	0.00 <sup>a</sup>		1.09
141 of 156	Expected		1.00	2.00		2.00		1.00		1.00		2.00				3.00	3.00		2.00
	Actual		1.03	2.05		1.98		1.04		1.00		2.00				2.93	0.00 <sup>a</sup>		1.96
142 of 156	Expected		1.00	3.00		3.00			1.00	1.00		1.00				2.00	2.00		2.00
	Actual		1.04	3.12		2.93			1.02	1.02		0.99				1.91	0.00 <sup>a</sup>		2.00
143 of 156	Expected		1.00	3.00		3.00			1.00		1.00	1.00		1.00		1.00	3.00		2.00
	Actual		1.02	3.03		2.89			1.05		1.01	0.99		1.08		0.93	0.00 <sup>a</sup>		1.99

**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)
144 of 156	Expected			2.00		4.00			1.00		1.00	1.00		2.00	1.00	1.00	3.00		1.00
	Actual			2.05		3.75			1.08		1.03	0.97		2.12	0.86	0.92	0.00 <sup>a</sup>		1.02
145 of 156	Expected			1.00		4.00			1.00	1.00	1.00	1.00		2.00	1.00	1.00	2.00	1.00	1.00
	Actual			1.01		3.78			0.98	1.07	1.07	1.05		1.99	1.03	0.99	0.00 <sup>a</sup>	1.04	0.97
146 of 156	Expected		1.00	1.00		5.00	1.00		1.00	1.00	1.00			2.00	1.00		1.00	1.00	1.00
	Actual		0.97	1.03		4.97	0.95		0.98	1.08	1.05			2.03	0.99		0.00 <sup>a</sup>	1.05	0.98
147 of 156	Expected		1.00	1.00	1.00	4.00	2.00		1.00	1.00	1.00			1.00			2.00	1.00	
	Actual		0.97	0.99	0.00 <sup>c</sup>	3.94	1.86		0.97	1.05	1.07			1.71 <sup>c</sup>			0.00 <sup>a</sup>	1.03	
148 of 156	Expected		1.00	1.00	1.00	2.00	3.00		1.00	3.00	1.00				1.00	1.00	1.00	1.00	
	Actual		1.04	1.07	0.00 <sup>c</sup>	2.05	2.99		1.04	3.06	1.00				0.99	0.95	0.00 <sup>a</sup>	1.00	
149 of 156	Expected	2.00		1.00	1.00	1.00	2.00		1.00	2.00				0.00	2.00	2.00	2.00		
	Actual	1.98	1.03	1.05	0.00 <sup>c</sup>	1.05	1.95		1.03	2.05				0.75 <sup>c</sup>	2.05	1.93	0.00 <sup>a</sup>		
150 of 156	Expected	3.00	1.00	1.00		1.00	1.00		2.00	2.00	1.00				1.00	3.00	1.00		
	Actual	2.93	1.01	1.07		1.04	0.97		2.11	2.05	1.03				1.00	2.85	0.00 <sup>a</sup>		
151 of 156	Expected	3.00	2.00	2.00		2.00			2.00		1.00					2.00	1.00		1.00
	Actual	2.91	2.00	2.09		2.07			2.11		0.95					1.98	0.00 <sup>a</sup>		1.01
152 of 156	Expected	1.00	1.00	3.00		3.00	1.00		3.00	1.00	1.00				1.00	1.00			1.00
	Actual	0.91	1.09	3.09		3.02	1.01		3.09	1.06	1.04				1.03	0.94			1.01
153 of 156	Expected		1.00	3.00		3.00	1.00		2.00	1.00		1.00			1.00	1.00		2.00	1.00
	Actual		1.05	3.00		2.86	1.07		1.95	1.02		1.09			1.02	1.00		2.04	0.95
154 of 156	Expected		1.00	2.00		2.00	1.00		1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00		2.00	
	Actual		1.05	2.05		1.96	0.99		0.98	1.03	1.09	1.95	1.02	0.98	0.91	0.92		1.99	
155 of 156	Expected		2.00	1.00		4.00					2.00	2.00	1.00	1.00	1.00	1.00		2.00	
	Actual		2.03	1.01		4.06					2.06	2.03	1.02	1.01	0.78	0.92		2.00	
156 of 156	Expected	1.00	2.00			4.00	1.00			1.00	2.00	1.00	1.00		1.00		1.00		1.00
	Actual	1.00	1.99			4.01	0.99			1.02	2.02	1.07	0.96		0.90		0.00 <sup>a</sup>		0.95

<sup>a</sup>Trp was completely destroyed during hydrolysis

<sup>b</sup>Val-Ile, Val-Val, Ile-Ile and/or Ile-Val bonds were only partially destroyed during hydrolysis

<sup>c</sup>Cys was partially destroyed during hydrolysis and Cys degradation products co-elute with Pro

**Date:** 30 APR 2007

**Signature:** Signature on File

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

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected by the vendor to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

ATCC® is a trademark of the American Type Culture Collection.

You are authorized to use this product for research use only. It is not intended for human use.

