

Peptide Array, Hepatitis C Virus, H77, NS3 Protein

Catalog No. NR-3752

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Product Description: The 98-peptide array spans the NS3 protein of hepatitis C virus, H77 (genotype 1a; GenPept: AAB67036). Peptides are 15- to 19-mers, with 11 or 12 amino acid overlaps.

Lot: T4943-1 to T4943-98

The following information applies to all peptides:

- Appearance
 - Mass spectral analysis
 - Counter Ion
- White lyophilized powder
Correct MW by MALDI-TOF
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 ^a	Peptide Content ^b
1 of 98	1/20/2011	18	1 APITAYAQQTRGLLGCI 18	1889.26	0.69	89.1%	87.2%
2 of 98	1/20/2011	18	7 AQQTRGLLGCIITSLTGR 24	1888.24	0.26	95.1%	84.7%
3 of 98	1/20/2011	16	14 LGCITSLTGRDKNQV 29	1718.02	0.09	95.4%	83.4%
4 of 98	1/20/2011	18	19 TSLTGRDKNQVEGEVQIV 36	1973.19	-0.64	93.3%	86.1%
5 of 98	1/20/2011	18	26 KNQVEGEVQIVSTATQTF 43	1979.19	-0.36	88.3%	87.7%
6 of 98	1/20/2011	16	33 VQIVSTATQTFLATCI 48	1696.01	1.22	93.6%	88.2%
7 of 98	1/20/2011	18	38 TATQTFLATCINGVCWTV 55	1929.26	0.91	82.1%	89.4%
8 of 98	1/20/2011	18	45 ATCINGVCWTVYHGAGTR 62	1909.19	0.27	93.7%	84.8%
9 of 98	1/20/2011	17	52 CWTVYHGAGTRTIASPK 68	1848.13	-0.25	95.1%	82.5%
10 of 98	1/20/2011	18	58 GAGTRTIASPKGPVIQMY 75	1847.18	-0.06	92.3%	84.4%
11 of 98	1/20/2011	18	65 ASPKGPVIQMYTNVDQDL 82	1976.25	-0.41	91.4%	89.7%
12 of 98	1/20/2011	16	72 IQMYTNVDQDLVGWPA 87	1850.1	-0.12	94.2%	89.0%
13 of 98	1/20/2011	18	77 NVDQDLVGWPAPQGSRL 94	1939.13	-0.59	96.2%	87.5%
14 of 98	1/20/2011	18	84 GWPAPQGSRLTPCTCGS 101	1805.04	-0.45	92.4%	88.8%
15 of 98	1/20/2011	17	91 SRSLTPCTCGSSDLYLV 107	1802.07	0.28	90.2%	89.2%
16 of 98	1/20/2011	18	97 CTCGSSDLYLVTRHADVI 114	1953.24	0.44	91.0%	85.1%
17 of 98	1/20/2011	16	104 LYLVTTRHADVIPVRRR 119	1964.37	-0.11	87.0%	76.2%
18 of 98	1/20/2011	18	109 RHADVIPVRRRGDSRGS 126	2047.33	-1.01	81.9%	76.0%
19 of 98	1/20/2011	17	116 VRRRGDSRGSLLSPRPI 132	1922.24	-0.95	92.5%	73.8%
20 of 98	1/20/2011	15	122 SRGSLLSPRPISYLK 136	1673.99	-0.34	82.6%	78.6%
21 of 98	1/20/2011	18	126 LLSRPISYLKGSSGGPL 143	1842.19	0.04	94.6%	84.3%
22 of 98	1/20/2011	18	133 SYLKGSSGGPLPCAGHA 150	1714.98	0.11	93.8%	81.6%
23 of 98	1/20/2011	18	140 GGPLPCAGHAVGLFRAA 157	1707.05	0.87	88.5%	83.3%
24 of 98	1/20/2011	18	147 AGHAVGLFRAAVCTRGVA 164	1756.08	0.92	84.6%	79.4%
25 of 98	1/20/2011	17	154 FRAAVCTRGVAKAVDFI 170	1824.19	0.88	81.9%	80.0%
26 of 98	1/20/2011	16	160 TRGVAKAVDFIPVENL 175	1729.02	0.36	82.4%	83.5%

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Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC ^a	Peptide Content ^b
27 of 98	1/20/2011	16	165 KAVDFIPVENLGTMR 180	1791.12	0.06	87.7%	85.4%
28 of 98	1/20/2011	15	170 IPVENLGTMRSPVF 184	1660.97	0.27	92.2%	87.9%
29 of 98	1/20/2011	19	174 NLGTTMRSPVFTDNSSPPA 192	1992.21	-0.54	99.0%	89.7%
30 of 98	1/20/2011	18	182 PVFTDNSSPPAVPQSFQV 199	1917.12	-0.19	89.8%	88.4%
31 of 98	1/20/2011	16	189 SPPAVPQSFQVAHLHA 204	1685.92	0.04	81.8%	83.1%
32 of 98	1/20/2011	17	194 PQSFQVAHLHAPTGS GK 210	1761.97	-0.54	89.4%	79.4%
33 of 98	1/20/2011	18	200 AHLHAPTGS GKSTKVPA 217	1729.97	-0.33	98.8%	79.2%
34 of 98	1/20/2011	18	207 GSGKSTKVPAAYAAQGYK 224	1784.02	-0.64	87.0%	79.6%
35 of 98	1/20/2011	15	214 VPAAYAAQGYKVLVL 228	1562.89	1.03	84.0%	87.3%
36 of 98	1/20/2011	17	218 YAAQGYKVLVLNPSVAA 234	1764.07	0.65	84.0%	88.6%
37 of 98	1/20/2011	18	224 KVLVLNPSVAATLGFGAY 241	1820.18	1.09	80.3%	85.6%
38 of 98	1/20/2011	18	231 SVAATLGFGAYMSKAHGV 248	1767.05	0.68	84.5%	83.8%
39 of 98	1/20/2011	16	238 FGAYMSKAHGVDPNIR 253	1763.02	-0.38	99.8%	80.5%
40 of 98	1/20/2011	17	243 SKAHGVDPNIRTVGRTI 259	1821.09	-0.5	80.2%	76.2%
41 of 98	1/20/2011	17	249 DPNIRTVGRTITTTGSP 265	1798.04	-0.35	82.3%	84.0%
42 of 98	1/20/2011	18	255 GVRTITTTGSPITYSTY GK 272	1902.15	-0.32	85.4%	84.8%
43 of 98	1/20/2011	18	262 GSPITYSTY GKFLADGGC 279	1837.05	-0.04	99.4%	91.0%
44 of 98	1/20/2011	18	269 TYGKFLADGGCSGGAYDI 286	1794.97	0.01	81.1%	88.7%
45 of 98	1/20/2011	18	276 DGGCSGGAYDIICDECH 293	1828.0	0.11	86.3%	88.9%
46 of 98	1/20/2011	18	283 AYDIICDECHSTDATSI 300	1970.18	0.28	86.7%	89.6%
47 of 98	1/20/2011	18	290 DECHSTDATSI LGITVL 307	1832.03	0.38	80.7%	88.9%
48 of 98	1/20/2011	17	297 ATSILGITVLDQAETA 313	1659.87	0.71	99.6%	87.9%
49 of 98	1/20/2011	18	303 IGTVLDQAETAGARLVVL 320	1826.14	0.93	86.3%	87.9%
50 of 98	1/20/2011	18	310 AETAGARLVVLATATPPG 327	1694.96	0.61	96.7%	88.1%
51 of 98	1/20/2011	17	317 LVVLATATPPGSVTVSH 333	1648.93	1.03	80.6%	87.9%
52 of 98	1/20/2011	18	323 ATPPGSVTVSHPNIEEVA 340	1804.99	-0.07	84.4%	87.8%
53 of 98	1/20/2011	18	330 TVSHPNIEEVALSTTGEI 347	1897.09	0.01	98.3%	89.3%
54 of 98	1/20/2011	18	337 EEVALSTTGEIPFY GKAI 354	1925.18	0.17	99.3%	89.4%
55 of 98	1/20/2011	17	344 TGEIPFY GKAIPLVIK 360	1875.26	0.31	82.8%	84.6%
56 of 98	1/20/2011	18	350 YGKAIPLEVIGGRHLIF 367	2011.46	0.38	83.4%	79.9%
57 of 98	1/20/2011	17	357 EVIKGGRHLIFCHSKKK 373	1980.43	-0.55	95.5%	68.5%
58 of 98	1/20/2011	18	363 RHLIFCHSKKKCDELA AK 380	2127.58	-0.6	99.8%	76.0%
59 of 98	1/20/2011	17	370 SKKKCDELA AKLV ALGI 386	1787.21	0.25	92.0%	75.8%
60 of 98	1/20/2011	18	376 ELA AKLV ALGINAVAYR 393	1935.31	0.83	97.0%	85.0%
61 of 98	1/20/2011	18	383 ALGINAVAYRGLDVSVI 400	1894.22	1.05	91.3%	89.3%
62 of 98	1/20/2011	18	390 AYYRGLDVSVIPTSGDVV 407	1911.16	0.45	80.6%	89.3%
63 of 98	1/20/2011	18	397 VSVIPTSGDVVVVSTDAL 414	1758.01	1.25	94.2%	88.5%
64 of 98	1/20/2011	15	404 GDVVVVSTDALMTGF 418	1510.74	1.14	95.6%	87.9%
65 of 98	1/20/2011	18	408 VVSTDALMTGFTGDFDSV 425	1862.06	0.59	86.4%	89.1%
66 of 98	1/20/2011	18	415 MTGFTGDFDSVIDCNTCV 432	1925.16	0.43	89.3%	89.4%
67 of 98	1/20/2011	17	422 FDSVIDCNTCVTQTVD F 438	1907.12	0.43	Crude	87.3%
68 of 98	1/20/2011	17	428 CNTCVTQTVD FSLDPTF 444	1891.12	0.21	81.5%	89.2%
69 of 98	1/20/2011	19	433 TQTVD FSLDPTFTIETTL 451	2130.35	0.03	80.6%	90.3%
70 of 98	1/20/2011	18	441 DPTFTIETTL PQDAVSR 458	1992.19	-0.49	100.0%	90.7%
71 of 98	1/20/2011	17	448 TTL PQDAVSR TQRRGR 464	1943.17	-1.43	97.9%	80.3%
72 of 98	1/20/2011	16	454 DAVSR TQRRGR TGRGK 469	1801.02	-1.92	88.0%	69.3%

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Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC ^a	Peptide Content ^b
73 of 98	1/20/2011	18	459 TQRRGRTGRGKPGIYRFV 476	2105.45	-1.35	98.8%	74.0%
74 of 98	1/20/2011	16	466 GRGKPGIYRFVAPGER 481	1760.05	-0.86	85.2%	76.1%
75 of 98	1/20/2011	16	471 GIYRFVAPGERPSGMF 486	1784.09	-0.06	97.2%	83.9%
76 of 98	1/20/2011	16	476 VAPGERPSGMFDSSVL 491	1648.87	0.05	99.2%	87.9%
77 of 98	1/20/2011	17	481 RPSGMFDSSVLCECYDA 497	1880.12	-0.07	83.0%	89.2%
78 of 98	1/20/2011	18	487 DSSVLCECYDAGCAWYEL 504	2027.25	0.19	98.4%	89.9%
79 of 98	1/20/2011	18	494 CYDAGCAWYELTPAETTV 511	1993.21	0.02	99.0%	89.7%
80 of 98	1/20/2011	17	501 WYELTPAETTVRLRAYM 517	2100.44	-0.35	99.6%	89.0%
81 of 98	1/20/2011	18	507 AETTVRLRAYMNTPLPV 524	1989.34	-0.08	99.4%	85.3%
82 of 98	1/20/2011	18	514 RAYMNTPLPVCQDHLEF 531	2091.41	-0.36	95.1%	85.9%
83 of 98	1/20/2011	16	521 GLPVCQDHLEFWEGVF 536	1876.14	0.22	85.3%	89.2%
84 of 98	1/20/2011	18	525 CQDHLEFWEGVFTGLTHI 542	2132.4	0.05	83.2%	86.2%
85 of 98	1/20/2011	16	532 WEGVFTGLTHIDAHFL 547	1843.09	0.45	99.0%	84.4%
86 of 98	1/20/2011	15	537 TGLTHIDAHFLSQT 551	1668.88	-0.26	80.7%	79.5%
87 of 98	1/20/2011	17	541 HIDAHFLSQTQSGENF 557	1959.12	-0.87	99.7%	83.5%
88 of 98	1/20/2011	17	547 LSQTQSGENFPYLVAY 563	1945.18	-0.49	93.0%	89.5%
89 of 98	1/20/2011	18	553 SGENFPYLVAYQATVCAR 570	1989.25	0.1	98.9%	89.7%
90 of 98	1/20/2011	19	560 LVAYQATVCARAQAPPSW 578	2029.37	0.19	84.6%	89.9%
91 of 98	1/20/2011	18	568 CARAQAPPSWDQMWKCL 585	2088.48	-0.57	90.8%	85.9%
92 of 98	1/20/2011	18	575 PPSWDQMWKCLIRLKPTL 592	2212.73	-0.39	100.0%	82.9%
93 of 98	1/20/2011	18	582 WKCLIRLKPTLHGPTPLL 599	2086.64	0.17	98.6%	80.5%
94 of 98	1/20/2011	17	589 KPTLHGPTPLLYRLGAV 605	1833.22	0.08	99.0%	83.2%
95 of 98	1/20/2011	17	595 PTPLLYRLGAVQNEVT 611	1884.22	0.24	99.0%	89.2%
96 of 98	1/20/2011	18	601 RLGAQVQNEVTLTHPITKY 618	2040.37	-0.29	83.9%	81.7%
97 of 98	1/20/2011	18	608 EVTLTHPITKYIMTCMSA 625	2039.48	0.44	87.5%	85.6%
98 of 98	1/20/2011	17	615 ITKYIMTCMSADLEVVT 631	1918.34	0.84	Crude	87.4%

^a% full-length

^bRemainder is salt and water

Table 2 - Amino Acid Analysis

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)
1 of 98	Expected	3.00	1.00		1.00	2.00	2.00		3.00	2.00				1.00		2.00		1.00	
	Actual	3.00	1.00		0.51 ^a	1.80	2.00		1.55 ^b	1.90				1.00		1.60		1.00	
2 of 98	Expected	1.00	2.00		1.00	2.00	3.00		2.00	3.00					1.00	3.00			
	Actual	1.00	2.00		0.50 ^a	1.90	3.00		0.80 ^b	2.80					0.90	2.80			
3 of 98	Expected		1.00	2.00	1.00	1.00	2.00		2.00	2.00	1.00				1.00	2.00			1.00
	Actual		0.90	1.80	0.44 ^a	1.10	2.00		0.80 ^b	1.80	0.80				0.90	1.77			1.00
4 of 98	Expected		1.00	2.00		4.00	2.00		1.00	1.00	1.00				1.00	2.00			3.00
	Actual		0.95	1.90		3.70	2.00		0.45 ^b	1.00	0.90				0.80	1.88			1.45 ^b
5 of 98	Expected	1.00		1.00		5.00	1.00		1.00		1.00		1.00		1.00	3.00			3.00
	Actual	0.90		0.80		4.70	1.10		0.65 ^b		1.00		1.10		0.78	2.95			1.40 ^b
6 of 98	Expected	2.00			1.00	2.00			2.00	1.00			1.00		1.00	4.00			2.00
	Actual	2.10			0.67 ^a	1.90			1.20 ^b	0.90			1.00		0.80	3.75			0.70 ^b

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)
7 of 98	Expected	2.00		1.00	2.00	1.00	1.00		1.00	1.00			1.00			5.00	1.00		2.00
	Actual	2.00		0.90	0.95 ^a	1.00	1.10		0.90	1.00			1.11			4.70	0.00 ^c		1.80
8 of 98	Expected	2.00	1.00	1.00	2.00		3.00	1.00	1.00							3.00	1.00	1.00	2.00
	Actual	2.10	1.00	0.80	0.65 ^a		3.10	1.10	0.80							2.80	0.00 ^c	0.90	1.90
9 of 98	Expected	2.00	1.00		1.00		2.00	1.00	1.00		1.00			1.00	1.00	3.00	1.00	1.00	1.00
	Actual	1.92	1.10		0.60 ^a		2.12	1.00	0.90		1.00			1.10	0.85	1.86	0.00 ^c	1.00	0.90
10 of 98	Expected	2.00	1.00			1.00	3.00		2.00		1.00	1.00		2.00	1.00	2.00		1.00	1.00
	Actual	1.90	1.00			1.00	3.11		1.55 ^b		1.00	0.78		2.10	0.90	1.70		1.00	0.55 ^b
11 of 98	Expected	1.00		3.00		2.00	1.00		1.00	1.00	1.00	1.00		2.00	1.00	1.00		1.00	2.00
	Actual	1.00		2.80		1.70	1.00		0.45 ^b	1.00	0.90	0.80		2.00	0.90	0.85		1.00	1.44 ^b
12 of 98	Expected	1.00		3.00		2.00	1.00		1.00	1.00		1.00		1.00		1.00	1.00	1.00	2.00
	Actual	1.10		2.80		1.70	1.10		0.80	1.00		0.80		1.10		0.80	0.00 ^c	1.10	1.80
13 of 98	Expected	1.00	1.00	3.00		2.00	2.00			2.00				2.00	2.00		1.00		2.00
	Actual	1.00	1.00	2.80		1.90	2.11			1.80				1.10	1.90		0.00 ^c		1.90
14 of 98	Expected	1.00	1.00		2.00	1.00	3.00			1.00				3.00	3.00	2.00	1.00		
	Actual	1.00	1.00		0.88 ^a	1.00	3.10			1.00				3.10	2.80	1.70	0.00 ^c		
15 of 98	Expected		1.00	1.00	2.00		1.00			3.00				1.00	4.00	2.00		1.00	1.00
	Actual		1.00	1.10	0.75 ^a		1.10			2.80				0.80	3.70	1.70		1.00	0.95
16 of 98	Expected	1.00	1.00	2.00	2.00		1.00	1.00	1.00	2.00					2.00	2.00		1.00	2.00
	Actual	1.00	0.90	2.00	1.30 ^a		1.12	1.10	0.70 ^b	1.80					1.95	0.78		1.10	1.50 ^b
17 of 98	Expected	1.00	4.00	1.00				1.00	1.00	2.00				1.00		1.00		1.00	3.00
	Actual	0.95	3.80	1.00				1.00	0.70 ^b	1.90				1.00		0.90		1.12	1.75 ^b
18 of 98	Expected	1.00	5.00	2.00			2.00	1.00	1.00	1.00				1.00	2.00				2.00
	Actual	0.88	4.75	1.80			2.05	1.10	0.50 ^b	1.00				0.90	1.90				1.40 ^b
19 of 98	Expected		5.00	1.00			2.00		1.00	2.00				2.00	3.00				1.00
	Actual		4.70	0.90			2.00		1.00	1.80				1.90	2.80				0.90
20 of 98	Expected		2.00				1.00		1.00	3.00	1.00			2.00	4.00			1.00	
	Actual		2.00				1.06		0.89	2.75	0.91			1.77	3.80			1.00	
21 of 98	Expected		1.00				3.00		1.00	4.00	1.00			3.00	4.00			1.00	
	Actual		1.00				3.00		0.95	3.88	1.00			3.00	3.70			0.95	
22 of 98	Expected	2.00			1.00		4.00	1.00		3.00	1.00			2.00	3.00			1.00	
	Actual	2.00			0.50 ^a		4.10	1.10		2.90	1.00			2.10	2.80			1.00	
23 of 98	Expected	4.00	1.00		1.00		4.00	1.00		3.00			1.00	2.00					1.00
	Actual	3.80	1.00		0.60 ^a		3.80	1.00		3.00			1.00	2.00					0.90
24 of 98	Expected	5.00	2.00		1.00		3.00	1.00		1.00			1.00			1.00			3.00
	Actual	4.80	2.00		0.60 ^a		3.00	1.10		1.00			0.90			0.80			2.80
25 of 98	Expected	4.00	2.00	1.00	1.00		1.00		1.00		1.00		2.00			1.00			3.00
	Actual	4.00	1.90	0.90	0.50 ^a		1.10		0.95		1.00		1.80			1.00			2.80
26 of 98	Expected	2.00	1.00	2.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00			3.00
	Actual	1.90	1.00	1.90		0.90	1.10		0.90	1.10	0.90		1.00	1.10		0.80			2.90
27 of 98	Expected	1.00	1.00	2.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00		2.00			2.00
	Actual	1.00	1.10	2.00		0.90	1.00		0.85	1.05	0.95	1.10	0.95	1.00		1.79			1.75
28 of 98	Expected		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	2.00	1.00	2.00			2.00
	Actual		1.10	0.95		0.80	1.20		0.80	0.95		0.78	1.01	2.00	0.95	1.70			1.80
29 of 98	Expected	1.00	1.00	3.00			1.00			1.00		1.00	1.00	3.00	3.00	3.00			1.00
	Actual	0.95	1.10	2.85			1.10			1.00		0.80	0.92	2.95	2.80	2.85			0.92
30 of 98	Expected	1.00		2.00		2.00							2.00	4.00	3.00	1.00			3.00
	Actual	1.00		2.00		1.75							1.80	3.90	2.90	1.00			2.75
31 of 98	Expected	3.00				2.00		2.00		1.00			1.00	3.00	2.00				2.00
	Actual	2.80				1.90		2.10		0.95			1.00	3.10	1.87				1.81
32 of 98	Expected	2.00				2.00	2.00	2.00		1.00	1.00		1.00	2.00	2.00	1.00			1.00
	Actual	1.80				1.80	2.11	2.10		0.90	1.00		1.00	1.90	1.75	0.85			0.90

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)
33 of 98	Expected	4.00					2.00	2.00		1.00	2.00			2.00	2.00	2.00			1.00
	Actual	3.70					2.10	2.00		0.97	1.85			1.90	1.90	1.80			0.95
34 of 98	Expected	4.00				1.00	3.00				3.00			1.00	2.00	1.00		2.00	1.00
	Actual	3.80				0.95	2.95				2.85			0.95	1.88	0.95		2.10	0.90
35 of 98	Expected	4.00				1.00	1.00			2.00	1.00			1.00				2.00	3.00
	Actual	3.91				1.00	1.10			1.80	0.85			0.90				2.10	2.76
36 of 98	Expected	4.00		1.00		1.00	1.00			2.00	1.00			1.00	1.00			2.00	3.00
	Actual	3.75		0.80		1.00	1.05			1.82	0.90			1.10	0.85			1.75	2.88
37 of 98	Expected	3.00		1.00			2.00			3.00	1.00		1.00	1.00	1.00	1.00		1.00	3.00
	Actual	2.80		0.70			2.10			2.70	1.10		1.05	1.00	0.88	0.85		1.00	2.80
38 of 98	Expected	4.00					3.00	1.00		1.00	1.00	1.00	1.00		2.00	1.00		1.00	2.00
	Actual	3.70					2.75	1.10		0.85	0.75	0.93	1.00		1.75	0.85		1.00	2.00
39 of 98	Expected	2.00	1.00	2.00			2.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
	Actual	1.85	0.70	1.80			1.90	1.10	0.82		0.85	0.95	1.00	1.00	1.00			0.99	0.90
40 of 98	Expected	1.00	2.00	2.00			2.00	1.00	2.00		1.00			1.00	1.00	2.00			2.00
	Actual	1.00	2.00	1.90			2.10	1.10	1.80		0.90			1.00	0.90	1.70			1.80
41 of 98	Expected		2.00	2.00			2.00		3.00					2.00	1.00	4.00			1.00
	Actual		1.80	1.70			2.10		2.80					2.00	1.00	3.80			0.85
42 of 98	Expected		1.00				3.00		2.00		1.00			1.00	2.00	5.00		2.00	1.00
	Actual		0.80				3.00		1.70		0.95			1.00	2.00	4.70		1.90	0.90
43 of 98	Expected	1.00		1.00	1.00		4.00		1.00	1.00	1.00		1.00	1.00	2.00	2.00		2.00	
	Actual	0.95		0.95	0.55 ^a		3.80		0.90	1.02	0.77		0.95	1.00	1.76	1.80		1.90	
44 of 98	Expected	2.00		2.00	1.00		5.00		1.00	1.00	1.00		1.00		1.00	1.00		2.00	
	Actual	1.80		1.78	0.44 ^a		4.70		0.92	1.02	0.80		1.05		1.10	1.00		2.00	
45 of 98	Expected	1.00		3.00	3.00	1.00	4.00	1.00	3.00						1.00			1.00	
	Actual	1.00		2.60	1.55 ^a	0.80	3.75	1.10	1.55 ^b						1.06			1.10	
46 of 98	Expected	2.00		3.00	2.00	1.00		1.00	4.00						2.00	2.00		1.00	
	Actual	1.90		2.67	1.15 ^a	0.98		1.10	1.60 ^b						1.81	1.70		1.10	
47 of 98	Expected	1.00		2.00	1.00	1.00	2.00	1.00	2.00	2.00					2.00	3.00			1.00
	Actual	0.90		1.89	0.57 ^a	0.80	1.91	0.90	1.75	1.80					2.00	2.70			0.92
48 of 98	Expected	3.00		1.00		2.00	2.00		2.00	2.00					1.00	3.00			1.00
	Actual	2.90		0.92		1.80	2.10		1.90	1.70					0.90	2.78			0.85
49 of 98	Expected	3.00	1.00	1.00		2.00	2.00		1.00	3.00						2.00			3.00
	Actual	2.88	1.10	1.00		1.80	2.10		0.95	2.80						1.70			1.43 ^b
50 of 98	Expected	5.00	1.00			1.00	2.00			2.00				2.00		3.00			2.00
	Actual	4.71	1.10			1.00	1.80			1.90				1.90		2.60			1.11 ^b
51 of 98	Expected	2.00					1.00	1.00		2.00				2.00	2.00	3.00			4.00
	Actual	1.90					1.10	1.05		1.80				1.99	1.90	2.50			2.44 ^b
52 of 98	Expected	2.00		1.00		2.00	1.00	1.00	1.00					3.00	2.00	2.00			3.00
	Actual	1.80		1.00		1.90	1.10	1.10	0.80					3.00	1.90	1.65			2.70
53 of 98	Expected	1.00		1.00		3.00	1.00	1.00	2.00	1.00				1.00	2.00	3.00			2.00
	Actual	0.90		0.85		2.70	1.10	1.10	1.80	1.00				1.00	1.80	2.70			1.65
54 of 98	Expected	2.00				3.00	2.00		2.00	1.00	1.00		1.00	1.00	1.00	2.00		1.00	1.00
	Actual	1.70				2.71	1.90		1.85	0.90	0.90		1.10	1.00	0.90	1.65		0.90	1.80
55 of 98	Expected	1.00				2.00	2.00		3.00	1.00	2.00		1.00	2.00		1.00		1.00	1.00
	Actual	1.00				2.00	2.11		1.45 ^b	0.99	1.80		0.85	1.70		0.80		1.00	0.50 ^b
56 of 98	Expected	1.00	1.00			1.00	3.00	1.00	3.00	2.00	2.00		1.00	1.00				1.00	1.00
	Actual	0.85	1.00			1.10	2.76	1.10	1.51 ^b	1.70	1.75		0.75	0.90				0.95	0.55 ^b
57 of 98	Expected		1.00		1.00	1.00	2.00	2.00	2.00	1.00	4.00		1.00		1.00				1.00
	Actual		1.00		0.55 ^a	0.75	2.00	1.95	1.33 ^b	0.85	3.78		1.00		0.92				0.55 ^b
58 of 98	Expected	2.00	1.00	1.00	2.00	1.00		2.00	1.00	2.00	4.00		1.00		1.00				
	Actual	1.95	1.10	0.95	1.00 ^a	0.83		1.95	0.90	2.00	3.83		0.75		0.92				

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)
59 of 98	Expected	3.00		1.00	1.00	1.00	1.00		1.00	3.00	4.00				1.00				1.00
	Actual	2.93		0.99	0.45 ^a	0.90	1.10		0.92	2.73	3.75				0.95				1.00
60 of 98	Expected	5.00	1.00	1.00		1.00	1.00		1.00	3.00	1.00							2.00	2.00
	Actual	4.60	1.10	0.90		0.88	1.10		0.75	2.91	1.00							1.90	1.95
61 of 98	Expected	3.00	1.00	2.00			2.00		2.00	2.00					1.00			2.00	3.00
	Actual	2.92	1.00	1.90			2.20		1.55 ^b	2.00					0.73			2.10	1.43 ^b
62 of 98	Expected	1.00	1.00	2.00			2.00		1.00	1.00				1.00	2.00	1.00		2.00	4.00
	Actual	0.77	0.99	2.00			1.95		0.47 ^b	0.99				1.00	1.76	0.81		2.13	2.20 ^b
63 of 98	Expected	1.00		2.00			1.00		1.00	1.00				1.00	3.00	2.00			6.00
	Actual	0.95		1.75			1.10		0.67 ^b	1.10				1.00	2.78	1.68			2.73 ^b
64 of 98	Expected	1.00		2.00			2.00			1.00		1.00	1.00		1.00	2.00			4.00
	Actual	0.95		2.00			2.08			1.05		0.70	0.99		0.78	1.70			2.41 ^b
65 of 98	Expected	1.00		3.00			2.00			1.00		1.00	2.00		2.00	3.00			3.00
	Actual	0.85		2.70			2.11			1.00		0.75	1.80		1.83	2.50			1.20 ^b
66 of 98	Expected			4.00	2.00		2.00		1.00			1.00	2.00		1.00	3.00			2.00
	Actual			3.60	0.90 ^a		2.00		0.50 ^b			0.73	2.10		0.93	2.65			1.35 ^b
67 of 98	Expected			4.00	2.00	1.00			1.00				2.00		1.00	3.00			3.00
	Actual			3.80	1.12 ^a	1.00			0.71 ^b				1.83		0.72	2.76			1.55 ^b
68 of 98	Expected			3.00	2.00	1.00				1.00			2.00	1.00	1.00	4.00			2.00
	Actual			2.60	1.10 ^a	0.90				1.10			1.75	0.90	1.00	3.70			1.90
69 of 98	Expected			2.00		2.00			1.00	2.00			2.00	1.00	1.00	7.00			1.00
	Actual			2.00		1.73			0.77	1.80			1.65	1.00	0.73	6.56			0.95
70 of 98	Expected	1.00	1.00	2.00		2.00			1.00	1.00			1.00	2.00	1.00	5.00			1.00
	Actual	1.00	1.00	1.78		1.75			0.83	1.00			0.88	1.90	0.90	4.73			1.00
71 of 98	Expected	1.00	4.00	1.00		2.00	1.00			1.00				1.00	1.00	4.00			1.00
	Actual	1.10	3.80	0.80		1.76	1.05			0.75				1.00	0.88	3.76			0.80
72 of 98	Expected	1.00	5.00	1.00		1.00	3.00				1.00				1.00	2.00			1.00
	Actual	0.90	4.76	0.78		0.85	3.05				0.85				1.10	1.80			1.00
73 of 98	Expected		5.00			1.00	4.00		1.00		1.00		1.00	1.00		2.00		1.00	1.00
	Actual		4.70			0.90	3.95		0.85		0.93		0.88	0.99		1.95		1.10	0.95
74 of 98	Expected	1.00	3.00			1.00	4.00		1.00		1.00		1.00	2.00				1.00	1.00
	Actual	0.90	3.00			0.90	4.15		0.88		0.95		1.05	2.03				1.05	0.90
75 of 98	Expected	1.00	2.00			1.00	3.00		1.00			1.00	2.00	2.00	1.00			1.00	1.00
	Actual	0.80	2.17			0.95	2.79		0.85			0.83	1.87	2.05	0.77			1.10	0.95
76 of 98	Expected	1.00	1.00	1.00		1.00	2.00			1.00		1.00	1.00	2.00	3.00				2.00
	Actual	0.95	1.10	0.95		0.77	2.00			0.80		0.63	0.90	1.95	2.78				1.75
77 of 98	Expected	1.00	1.00	2.00	2.00	1.00	1.00			1.00		1.00	1.00	1.00	3.00			1.00	1.00
	Actual	0.80	1.00	1.80	0.69 ^a	0.95	1.03			0.78		0.83	1.00	0.95	2.73			1.00	0.80
78 of 98	Expected	2.00		2.00	3.00	2.00	1.00			2.00					2.00		1.00	2.00	1.00
	Actual	2.10		2.00	1.44 ^a	1.90	1.10			1.80					1.73		0.00 ^c	1.99	0.85
79 of 98	Expected	3.00		1.00	2.00	2.00	1.00			1.00				1.00		3.00	1.00	2.00	1.00
	Actual	2.88		0.90	1.20 ^a	1.75	1.10			1.00				0.85		2.73	0.00 ^c	2.10	0.85
80 of 98	Expected	2.00	2.00			2.00				2.00		1.00		1.00		3.00	1.00	2.00	1.00
	Actual	1.99	1.95			1.85				1.90		0.78		1.00		2.68	0.00 ^c	2.05	1.00
81 of 98	Expected	2.00	2.00	1.00		1.00	1.00			2.00		1.00		2.00		3.00		1.00	2.00
	Actual	1.80	2.00	0.85		0.97	1.10			1.90		0.80		2.05		2.70		1.10	1.93
82 of 98	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	1.00
	Actual	0.85	0.88	1.75	0.43 ^a	1.70	1.10	0.90		1.65		1.00	0.90	1.67		0.80		1.05	0.80
83 of 98	Expected			1.00	1.00	3.00	2.00	1.00		2.00			2.00	1.00			1.00		2.00
	Actual			1.00	0.55 ^a	2.67	2.10	1.05		1.70			1.77	0.90			0.00 ^c		1.70
84 of 98	Expected			1.00	1.00	3.00	2.00	2.00	1.00	2.00			2.00			2.00	1.00		1.00
	Actual			1.00	0.47 ^a	2.80	2.10	2.05	0.99	1.95			1.80			1.70	0.00 ^c		0.80

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)
85 of 98	Expected	1.00		1.00		1.00	2.00	2.00	1.00	2.00			2.00			2.00	1.00		1.00
	Actual	1.00		0.90		1.05	2.15	2.15	0.95	1.99			1.65			1.60	0.00 ^c		0.95
86 of 98	Expected	1.00		1.00		1.00	1.00	2.00	1.00	2.00	1.00		1.00		1.00	3.00			
	Actual	0.90		0.85		0.95	1.15	2.05	1.00	2.00	0.88		0.95		0.87	2.60			
87 of 98	Expected	1.00		2.00		3.00	1.00	2.00	1.00	1.00			2.00		2.00	1.00			
	Actual	0.90		1.88		2.65	1.05	1.85	0.90	1.00			1.73		1.67	0.70			
88 of 98	Expected	1.00		1.00		3.00	1.00			2.00	1.00		1.00	1.00	2.00	1.00		2.00	1.00
	Actual	0.80		0.95		2.66	1.10			1.75	0.95		0.90	1.00	2.10	0.80		2.05	0.80
89 of 98	Expected	3.00	1.00	1.00	1.00	2.00	1.00			1.00			1.00	1.00	1.00	1.00		2.00	2.00
	Actual	2.80	0.95	0.95	0.59 ^a	1.80	0.95			1.00			0.88	1.00	0.88	0.85		2.00	1.75
90 of 98	Expected	5.00	1.00		1.00	2.00				1.00				3.00	1.00	1.00	1.00	1.00	2.00
	Actual	4.76	1.00		0.54 ^a	1.80				1.00				3.01	0.76	0.85	0.00 ^c	0.90	1.80
91 of 98	Expected	3.00	1.00	1.00	2.00	2.00				1.00	1.00	1.00		3.00	1.00		2.00		
	Actual	2.80	1.05	0.80	1.00 ^a	1.80				1.00	1.05	0.78		2.80	0.80		0.00 ^c		
92 of 98	Expected		1.00	1.00	1.00	1.00			1.00	3.00	2.00	1.00		3.00	1.00	1.00	2.00		
	Actual		0.80	0.95	0.51 ^a	0.85			0.83	2.90	1.95	1.05		2.80	0.75	0.80	0.00 ^c		
93 of 98	Expected		1.00		1.00		1.00	1.00	1.00	5.00	2.00			3.00		2.00	1.00		
	Actual		0.88		0.45 ^a		1.05	1.05	0.80	4.80	1.73			2.73		1.70	0.00 ^c		
94 of 98	Expected	1.00	1.00				2.00	1.00		4.00	1.00			3.00		2.00		1.00	1.00
	Actual	1.00	1.05				1.85	1.10		3.77	0.95			3.00		1.60		1.00	0.88
95 of 98	Expected	1.00	1.00	1.00		2.00	1.00			4.00				2.00		2.00		1.00	2.00
	Actual	1.00	1.05	0.78		1.95	1.05			3.80				1.95		1.70		1.10	1.78
96 of 98	Expected	1.00	1.00	1.00		2.00	1.00	1.00	1.00	2.00	1.00			1.00		3.00		1.00	2.00
	Actual	0.90	1.05	0.80		1.85	1.15	1.00	0.90	1.80	0.95			1.00		2.80		1.10	1.85
97 of 98	Expected	1.00			1.00	1.00		1.00	2.00	1.00	1.00	2.00		1.00	1.00	4.00		1.00	1.00
	Actual	0.88			0.53 ^a	0.77		1.05	1.83	0.90	0.90	1.66		1.05	0.75	3.88		0.90	1.00
98 of 98	Expected	1.00		1.00	1.00	1.00			2.00	1.00	1.00	2.00			1.00	3.00		1.00	2.00
	Actual	0.90		1.10	0.50 ^a	1.10			1.85	0.91	0.80	1.70			0.80	1.83		1.05	1.13 ^b

^aCys was partially destroyed during hydrolysis

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

^cTrp was completely destroyed during hydrolysis

Date: 27 APR 2011

Signature: Dorothy C. Young

Title: Technical Manager, BEI Authentication or designee

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