

Peptide Array, Hepatitis C Virus, J4, NS5B Protein

Catalog No. NR-3746

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Product Description: The 90-peptide array spans the NS5B protein of hepatitis C virus, J4 (genotype 1b; GenPept: AAC15722). Peptides are 14- to 19-mers, with 11 amino acid overlaps.

Lot: N665-1 to N665-90

The following information applies to all peptides:

- Appearance White lyophilized powder
- Mass spectral analysis Correct MW by MALDI-TOF
- 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 ^a	Peptide Content ^b
1 of 90	7/27/2006	16	1 SMSYTWGALITPCAA 16	1672.95	0.64	94.4%	88.0%
2 of 90	7/27/2006	18	6 WTGALITPCAAEESKLPI 23	1900.24	0.38	98.9%	89.3%
3 of 90	7/27/2006	18	13 PCAAEESKLPINPLSNSL 30	1883.17	-0.17	80.3%	89.2%
4 of 90	7/27/2006	18	20 KLPINPLSNSLLRHHNMV 37	2083.51	-0.24	97.2%	78.5%
5 of 90	7/27/2006	17	27 SNSLLRHHNMVYATTSR 43	1987.24	-0.71	84.7%	77.7%
6 of 90	7/27/2006	18	33 HHNMVYATTSRSASLRQK 50	2087.37	-0.99	90.2%	75.3%
7 of 90	7/27/2006	18	40 TTSRSASLRQKKVTFDRL 57	2094.42	-0.91	83.4%	75.4%
8 of 90	7/27/2006	18	47 LRQKKVTFDRLQVLDDHY 64	2274.63	-0.94	98.7%	76.9%
9 of 90	7/27/2006	18	54 FDRQLQVLDDHYRDVLKEM 71	2292.62	-0.77	89.5%	80.1%
10 of 90	7/27/2006	18	61 DDHYRDVLKEMKAKASTV 78	2106.40	-1.03	95.8%	75.5%
11 of 90	7/27/2006	18	68 LKEMKAKASTVKAKLLSI 85	1959.48	0.12	97.7%	74.1%
12 of 90	7/27/2006	17	75 ASTVKAKLLSIEEACKL 91	1804.20	0.41	94.6%	79.8%
13 of 90	7/27/2006	18	81 KLLSIEEACKLTPPHSAK 98	1965.36	-0.3	99.0%	77.5%
14 of 90	7/27/2006	18	88 ACKLTPPHSAKSKFGYGA 105	1863.18	-0.44	95.6%	76.6%
15 of 90	7/27/2006	17	95 HSAKSKFGYGAKDVRNL 111	1878.14	-0.92	90.8%	73.3%
16 of 90	7/27/2006	18	101 FGYGAKDVRNLSSRAVNH 118	1991.21	-0.65	94.4%	77.7%
17 of 90	7/27/2006	16	108 VRNLSSRAVNHRSVW 123	1894.19	-0.27	91.6%	76.9%
18 of 90	7/27/2006	15	113 SRAVNHRSVWEDLL 127	1795.05	-0.19	92.2%	79.7%
19 of 90	7/27/2006	18	117 NHRSVWEDLLEDTETPI 134	2167.38	-0.7	82.4%	86.4%
20 of 90	7/27/2006	18	124 EDLLEDTETPIDTTIMAK 141	2035.27	-0.5	98.1%	89.9%
21 of 90	7/27/2006	17	131 ETPIDTTIMAKSEVFCV 147	1884.21	0.44	90.1%	89.2%
22 of 90	7/27/2006	18	137 TIMAKSEVFCVQPEKGG 154	1980.35	-0.27	80.1%	81.3%
23 of 90	7/27/2006	18	144 VFCVQPEKGGKPARLIV 161	1997.45	0.01	94.0%	77.8%
24 of 90	7/27/2006	18	151 KGGRKPARLIVFPDLGVR 168	1979.42	-0.23	100.0%	74.3%
25 of 90	7/27/2006	18	158 RLIVFPDLGVRVCEKML 175	2059.59	0.87	89.0%	81.9%
26 of 90	7/27/2006	18	165 LGVRVCEKMLYDVVSTL 182	1996.44	0.88	80.7%	85.4%
27 of 90	7/27/2006	16	172 KMALYDVVSTLPQAVM 187	1766.17	0.77	89.2%	88.6%
28 of 90	7/27/2006	17	177 DVVSTLPQAVMGSSYGF 193	1758.00	0.54	95.8%	88.5%

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Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC ^a	Peptide Content ^b
29 of 90	7/27/2006	18	183 PQAVMGSSYGFQYSPKQR 200	2031.29	-0.96	99.0%	85.6%
30 of 90	7/27/2006	16	190 SYGFQYSPKQRVEFLV 205	1948.23	-0.46	93.4%	85.1%
31 of 90	7/27/2006	18	195 YSPKQRVEFLVNTWKSCK 212	2238.64	-1.21	97.8%	76.6%
32 of 90	7/27/2006	18	202 EFLVNTWKSCKCPMGFSY 219	2165.58	-0.4	96.6%	82.6%
33 of 90	7/27/2006	16	209 KSKKCPMGFSYDTRCF 224	1898.27	-0.8	92.3%	76.9%
34 of 90	7/27/2006	15	214 PMGFSYDTRCFDSTV 228	1725.93	-0.24	96.2%	88.3%
35 of 90	7/27/2006	18	218 SYDTRCFDSTVTESDIRV 235	2094.26	-0.59	82.2%	86.0%
36 of 90	7/27/2006	16	225 DSTVTESDIRVEESY 240	1842.95	-0.61	83.1%	89.0%
37 of 90	7/27/2006	17	230 ESDIRVEESYQCCDLA 246	1973.18	-0.27	80.6%	89.6%
38 of 90	7/27/2006	18	236 EESYQCCDLAPEARQAI 253	2039.29	-0.33	93.2%	89.9%
39 of 90	7/27/2006	18	243 CDLAPPEARQAIRSLTERL 260	2042.36	-0.38	86.4%	81.7%
40 of 90	7/27/2006	17	250 RQAIRSLTERLYIGGPL 266	1943.3	-0.21	90.9%	81.0%
41 of 90	7/27/2006	15	256 LTERLYIGGPLTNSK 270	1661.93	-0.36	89.9%	82.9%
42 of 90	7/27/2006	18	260 LYIGGPLTNSKGQNCGYR 277	1941.21	-0.64	96.4%	85.0%
43 of 90	7/27/2006	18	267 TNSKGQNCGYRRCRASGV 284	1957.2	-1.21	86.5%	77.4%
44 of 90	7/27/2006	18	274 CGYRRCRASGVLTSCGN 291	1904.19	-0.29	89.5%	80.7%
45 of 90	7/27/2006	18	281 ASGVLTSCGNTLTCLYK 298	1832.14	0.47	82.9%	88.9%
46 of 90	7/27/2006	18	288 SCGNTLTCLYKATAACRA 305	1847.18	0.32	90.9%	84.4%
47 of 90	7/27/2006	19	295 CYLKATAACRAAKLQDCTM 313	2061.51	0.21	89.0%	81.9%
48 of 90	7/27/2006	18	303 CRAAKLQDCTMLVNGDDL 320	1966.3	-0.05	94.5%	85.2%
49 of 90	7/27/2006	18	310 DCTMLVNGDDLVVICESA 327	1897.19	0.78	83.5%	89.3%
50 of 90	7/27/2006	18	317 GDDLVVICESAGTQEDAA 334	1792.91	0.07	80.7%	88.7%
51 of 90	7/27/2006	16	324 CESAGTQEDAAALRAF 339	1639.77	-0.14	89.6%	87.8%
52 of 90	7/27/2006	18	329 TQEDAAALRAFTEAMTRY 346	2045.28	-0.49	84.1%	85.7%
53 of 90	7/27/2006	18	336 LRAFTEAMTRYSAPPGDP 353	1980.25	-0.6	83.6%	85.3%
54 of 90	7/27/2006	18	343 MTRYSAPPGDPPQPEYDL 360	2034.25	-1.31	93.5%	89.9%
55 of 90	7/27/2006	18	350 PGDPPQPEYDLELITSCS 367	1961.15	-0.74	87.2%	89.6%
56 of 90	7/27/2006	18	357 EYDLELITSCSNVVAH 374	1967.16	0.13	Crude	89.6%
57 of 90	7/27/2006	18	364 TSCSNVVAHADASGKRV 381	1804.97	-0.28	99.7%	79.8%
58 of 90	7/27/2006	16	371 SVAHADASGKRVYYLTR 386	1823.06	-0.57	96.8%	76.2%
59 of 90	7/27/2006	18	376 ASGKRVYYLTRDPTTPLA 393	2009.31	-0.56	80.4%	81.5%
60 of 90	7/27/2006	18	383 YLTRDPTTPLARAAWETA 400	2033.29	-0.52	91.7%	85.6%
61 of 90	7/27/2006	16	390 TPLARAAWETARHTPI 405	1791.06	-0.4	94.7%	79.7%
62 of 90	7/27/2006	18	395 AAWETARHTPINSWLGNI 412	2037.28	-0.33	95.5%	85.6%
63 of 90	7/27/2006	18	402 HTPINSWLGNIIMYAPTL 419	2041.42	0.37	86.2%	90.0%
64 of 90	7/27/2006	18	409 LGNIIMYAPTLWARMILM 426	2107.69	1.18	85.0%	90.2%
65 of 90	7/27/2006	18	416 APTLWARMILMTHFFSIL 433	2148.68	1.17	86.1%	86.3%
66 of 90	7/27/2006	17	423 MILMTHFFSILLAQEQL 439	2035.52	1.19	92.8%	89.9%
67 of 90	7/27/2006	15	429 FFSILLAQEQLKAL 443	1750.08	0.68	89.7%	88.5%
68 of 90	7/27/2006	18	433 LLAQEQLKALDCQIYGA 450	2006.32	0.06	100.0%	89.8%
69 of 90	7/27/2006	18	440 EKALDCQIYGACYSIEPL 457	2016.34	0.11	84.6%	89.8%
70 of 90	7/27/2006	17	447 IYGACYSIEPLDLPQII 463	1908.26	0.73	97.1%	89.3%
71 of 90	7/27/2006	17	453 SIEPLDLPQIIERLHGL 469	1943.29	0.15	97.0%	85.0%
72 of 90	7/27/2006	17	459 LPQIIERLHGLSAFTLH 475	1945.31	0.44	97.2%	81.0%
73 of 90	7/27/2006	18	465 RLHGLSAFTLHSPGIEI 482	1985.25	-0.04	97.1%	81.3%
74 of 90	7/27/2006	18	472 FTLHSPGIEINRVASCL 489	1994.27	0.13	98.4%	85.4%
75 of 90	7/27/2006	16	479 PGEINRVASCLRKLG 494	1712.06	0.11	81.9%	79.0%
76 of 90	7/27/2006	18	484 RVASCLRKLGVPPLRTWR 501	2108.6	-0.21	93.5%	75.5%

Table 1

Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC ^a	Peptide Content ^b
77 of 90	7/27/2006	18	491 KLGVPPLRTWRHRARSVR 508	2185.63	-0.99	92.1%	70.6%
78 of 90	7/27/2006	15	498 RTWRHRARSVRAKLL 512	1906.29	-1.11	99.0%	67.6%
79 of 90	7/27/2006	18	502 HRARSVRAKLLSQGGRAA 519	1934.25	-0.67	96.6%	70.8%
80 of 90	7/27/2006	18	509 AKLLSQGGRAATCGRYLF 526	1912.26	0.09	98.6%	80.7%
81 of 90	7/27/2006	18	516 GRAATCGRYLFNWAVRTK 533	2070.42	-0.37	81.3%	78.4%
82 of 90	7/27/2006	17	523 RYLFNWAVRTKLTPI 539	2119.6	-0.05	97.2%	78.8%
83 of 90	7/27/2006	17	529 AVRTKLTPIPAASQL 545	1807.23	0.25	96.9%	79.9%
84 of 90	7/27/2006	18	535 KLTPIPAASQLDLGWFV 552	1943.29	0.49	97.8%	89.5%
85 of 90	7/27/2006	19	542 ASQLDLGWFVAGYSGGDI 560	1943.12	0.32	96.3%	89.5%
86 of 90	7/27/2006	18	550 WFLVAGYSGGDIYHLSRA 567	1986.19	0.03	90.9%	85.3%
87 of 90	7/27/2006	18	557 GGDIYHLSRARPRWFPL 574	2128.44	-0.63	98.6%	78.9%
88 of 90	7/27/2006	18	564 LSRARPRWFPLCLLLLSV 581	2140.69	0.83	96.8%	82.4%
89 of 90	7/27/2006	18	571 WFPLCLLLSVGVIYLL 588	2019.58	2.19	Crude	89.9%
90 of 90	7/27/2006	14	578 LLSVGVGIYLLPNR 591	1513.86	1.11	82.8%	86.9%

^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 90	Expected	3.00			1.00		1.00		1.00	1.00		1.00		1.00	2.00	3.00	1.00	1.00	
	Actual	2.67			0.52 ^b		1.02		0.94	1.04		0.74		1.11	2.00	2.70	0.00 ^a	0.98	
2 of 90	Expected	3.00			1.00	2.00	1.00		2.00	2.00	1.00			2.00	1.00	2.00	1.00		
	Actual	2.77			0.54 ^b	1.76	1.09		1.71	1.77	0.96			2.00	1.00	1.79	0.00 ^a		
3 of 90	Expected	2.00		2.00	1.00	2.00			1.00	3.00	1.00			3.00	3.00				
	Actual	2.08		1.89	0.47 ^b	1.96			1.05	3.20	0.93			3.00	3.05				
4 of 90	Expected		1.00	3.00				2.00	1.00	4.00	1.00	1.00		2.00	2.00				1.00
	Actual		1.04	2.75				1.80	1.01	3.64	1.11	0.91		2.00	1.96				0.93
5 of 90	Expected	1.00	2.00	2.00				2.00		2.00		1.00			3.00	2.00		1.00	1.00
	Actual	0.97	2.21	1.84				2.00		1.85		1.00			2.83	1.91		0.86	0.84
6 of 90	Expected	2.00	2.00	1.00		1.00		2.00		1.00	1.00	1.00			3.00	2.00		1.00	1.00
	Actual	1.89	2.28	0.90		1.05		1.68		1.00	1.17	1.00			3.00	1.81		0.96	0.86
7 of 90	Expected	1.00	3.00	1.00		1.00				2.00	2.00		1.00		3.00	3.00			1.00
	Actual	0.98	3.00	0.97		1.04				1.82	1.96		0.97		2.79	2.63			0.94
8 of 90	Expected		2.00	3.00		2.00		1.00		3.00	2.00		1.00			1.00		1.00	2.00
	Actual		2.11	2.65		1.85		1.00		2.79	1.89		1.05			1.01		0.99	1.76
9 of 90	Expected		2.00	4.00		2.00		1.00		3.00	1.00	1.00	1.00					1.00	2.00
	Actual		2.16	3.60		2.01		1.03		2.64	1.05	1.02	1.00					1.02	1.73
10 of 90	Expected	2.00	1.00	3.00		1.00		1.00		1.00	3.00	1.00			1.00	1.00		1.00	2.00
	Actual	1.68	1.02	2.60		0.87		1.00		0.71	2.70	0.97	0.00	0.00	0.96	0.74		1.05	1.62
11 of 90	Expected	3.00				1.00			1.00	3.00	5.00	1.00			2.00	1.00			1.00
	Actual	2.75				1.08			1.10	2.78	4.65	1.11			2.06	0.83			1.00
12 of 90	Expected	3.00			1.00	2.00			1.00	3.00	3.00				2.00	1.00			1.00
	Actual	3.00			0.56 ^b	2.04			1.03	3.13	2.72				2.12	0.79			0.96
13 of 90	Expected	2.00			1.00	2.00		1.00	1.00	3.00	3.00			2.00	2.00	1.00			
	Actual	1.82			0.53 ^b	2.24		1.04	1.13	2.78	2.72			2.00	1.78	0.80			
14 of 90	Expected	3.00			1.00		2.00	1.00		1.00	3.00		1.00	2.00	2.00	1.00		1.00	
	Actual	2.74			0.63 ^b		2.01	1.05		0.99	2.63		0.93	2.00	1.86	0.84		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)
15 of 90	Expected	2.00	1.00	2.00			2.00	1.00		1.00	3.00		1.00		2.00			1.00	1.00
	Actual	1.78	0.78	1.82			2.11	1.00		1.05	2.61		1.13		1.74			1.15	0.77
16 of 90	Expected	2.00	2.00	3.00			2.00	1.00		1.00	1.00		1.00		2.00			1.00	2.00
	Actual	1.66	2.00	2.64			1.83	1.02		0.95	0.91		1.05		1.83			1.02	1.65
17 of 90	Expected	1.00	3.00	2.00				1.00	1.00	1.00					3.00		1.00	0.00	3.00
	Actual	1.00	2.80	1.90				1.04	0.77	1.04					3.05		0.00 ^a	0.00	2.75
18 of 90	Expected	1.00	2.00	2.00		1.00		1.00	1.00	2.00					2.00		1.00		2.00
	Actual	0.93	1.97	1.78		0.97		1.05	0.87	1.90					2.00		0.00 ^a		1.93
19 of 90	Expected		1.00	3.00		3.00		1.00	2.00	2.00				1.00	1.00	2.00	1.00		1.00
	Actual		0.76	2.89		3.17		0.98	2.00	2.15				1.11	1.06	1.91	0.00 ^a		0.80
20 of 90	Expected	1.00		3.00		3.00			2.00	2.00	1.00	1.00		1.00		4.00			
	Actual	1.00		2.76		2.89			1.78	1.96	1.15	0.94		1.14		2.88			
21 of 90	Expected	1.00		1.00	1.00	2.00			2.00		1.00	1.00	1.00	1.00	1.00	3.00			2.00
	Actual	1.16		0.99	0.45 ^b	2.00			2.06		1.16	1.04	0.71	1.21	1.03	2.69			1.78
22 of 90	Expected	1.00	1.00		1.00	3.00	2.00		1.00		2.00	1.00	1.00	1.00	1.00	1.00			2.00
	Actual	1.04	0.96		0.64 ^b	3.10	2.00		0.83		1.85	1.06	0.84	1.09	1.25	0.68			1.73
23 of 90	Expected	1.00	2.00		1.00	2.00	2.00		1.00	1.00	2.00		1.00	2.00					3.00
	Actual	1.03	2.00		0.56 ^b	1.74	2.20		0.72 ^c	0.75	1.75		0.71	2.24					1.61 ^c
24 of 90	Expected	1.00	3.00	1.00			3.00		1.00	2.00	2.00		1.00	2.00					2.00
	Actual	1.07	2.63	1.00			3.05		0.68 ^c	1.74	1.91		0.86	2.05					1.28 ^c
25 of 90	Expected	1.00	2.00	1.00	1.00	1.00	1.00		1.00	3.00	1.00	1.00	1.00	1.00					3.00
	Actual	1.00	1.61	0.92	0.47 ^b	0.91	1.08		0.64 ^c	2.77	0.87	1.12	0.88	1.20					1.69 ^c
26 of 90	Expected	1.00	1.00	1.00	1.00	1.00	1.00			3.00	1.00	1.00			1.00	1.00		1.00	4.00
	Actual	0.94	0.72	0.86	0.51 ^b	0.74	1.09			2.87	1.00	1.11			1.00	0.61		1.16	2.65 ^c
27 of 90	Expected	2.00		1.00		1.00				2.00	1.00	2.00		1.00	1.00	1.00		1.00	3.00
	Actual	1.85		0.93		1.00				1.89	0.90	2.02		1.09	0.99	1.00		1.06	1.93 ^c
28 of 90	Expected	1.00		1.00		1.00	2.00			1.00		1.00	1.00	1.00	3.00	1.00		1.00	3.00
	Actual	1.00		0.95		1.00	1.89			1.12		1.09	1.09	1.20	2.74	0.88		1.13	1.74 ^c
29 of 90	Expected	1.00	1.00			3.00	2.00				1.00	1.00	1.00	2.00	3.00			2.00	1.00
	Actual	0.92	1.12			2.62	1.96				0.82	0.75	1.05	2.00	3.01			2.22	0.75
30 of 90	Expected		1.00			3.00	1.00			1.00	1.00		2.00	1.00	2.00			2.00	2.00
	Actual		1.03			2.55	0.89			0.88	0.86		2.00	1.02	1.78			2.00	1.72
31 of 90	Expected		1.00	1.00		2.00				1.00	4.00		1.00	1.00	2.00	1.00	1.00	1.00	2.00
	Actual		0.82	0.74		1.77				1.00	4.06		0.87	1.03	1.89	0.73	0.00 ^a	1.09	2.06
32 of 90	Expected			1.00	1.00	1.00	1.00			1.00	3.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00
	Actual			0.75	0.50 ^b	0.87	1.05			0.77	2.73	1.08	1.75	1.00	1.76	0.72	0.00 ^a	0.97	0.83
33 of 90	Expected		1.00	1.00	2.00		1.00				3.00	1.00	2.00	1.00	2.00	1.00		1.00	
	Actual		1.08	0.94	0.92 ^b		0.94				2.79	0.97	1.88	1.11	1.89	0.85		1.00	
34 of 90	Expected		1.00	2.00	1.00		1.00					1.00	2.00	1.00	2.00	2.00		1.00	1.00
	Actual		1.06	1.76	0.65 ^b		0.99					1.06	2.00	1.06	1.84	1.69		1.06	1.00
35 of 90	Expected		2.00	3.00	1.00	1.00			1.00				1.00		3.00	3.00		1.00	2.00
	Actual		1.63	2.91	0.53 ^b	0.98			0.84				1.02		3.12	2.67		1.00	1.88
36 of 90	Expected		1.00	2.00		3.00			2.00						3.00	2.00		1.00	2.00
	Actual		0.80	2.07		3.21			1.81						3.12	1.79		1.00	2.13
37 of 90	Expected	1.00	1.00	2.00	2.00	4.00			2.00	1.00					2.00			1.00	1.00
	Actual	1.08	1.03	1.89	0.98 ^b	3.74			1.69	1.14					1.73			0.84	1.00
38 of 90	Expected	3.00	1.00	1.00	2.00	5.00			2.00	1.00				1.00	1.00			1.00	
	Actual	2.64	1.20	1.00	0.92 ^b	4.66			1.76	1.14				1.10	0.99			0.88	
39 of 90	Expected	3.00	3.00	1.00	1.00	3.00			1.00	3.00				1.00	1.00	1.00			
	Actual	3.10	2.72	1.07	0.59 ^b	3.00			0.77	2.94				1.14	1.17	0.96			

Table 2 - Amino Acid Analysis

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)
40 of 90	Expected	1.00	3.00			2.00	2.00		2.00	3.00				1.00	1.00	1.00		1.00	
	Actual	1.12	2.69			1.80	1.92		1.67	3.27				1.21	1.09	0.86		1.00	
41 of 90	Expected		1.00	1.00		1.00	2.00		1.00	3.00	1.00			1.00	1.00	2.00		1.00	
	Actual		1.00	0.90		0.92	1.72		0.99	2.69	0.89			1.04	1.03	1.75		0.89	
42 of 90	Expected		1.00	2.00	1.00	1.00	4.00		1.00	2.00	1.00			1.00	1.00	1.00			2.00
	Actual		0.89	2.00	0.48 ^b	1.09	3.64		1.11	2.02	1.08			1.15	1.00	0.90			1.89
43 of 90	Expected	1.00	3.00	2.00	2.00	1.00	3.00				1.00				2.00	1.00		1.00	1.00
	Actual	0.97	3.19	1.88	1.08 ^b	1.03	3.18				0.96				1.97	1.00		1.17	1.04
44 of 90	Expected	1.00	3.00	1.00	3.00		3.00			1.00					2.00	2.00		1.00	1.00
	Actual	1.18	3.10	0.94	1.46 ^b		2.89			0.99					1.66	1.79		1.23	1.00
45 of 90	Expected	1.00		1.00	2.00		2.00			3.00	1.00				2.00	4.00		1.00	1.00
	Actual	0.89		1.00	0.95 ^b		2.12			2.78	0.92				1.78	3.65		1.19	0.78
46 of 90	Expected	4.00	1.00	1.00	3.00		1.00			2.00	1.00				1.00	3.00			1.00
	Actual	3.68	1.00	0.96	1.47 ^b		1.14			2.05	0.95				0.79	2.61			1.25
47 of 90	Expected	5.00	1.00	1.00	3.00	1.00				2.00	2.00	1.00					2.00		1.00
	Actual	4.70	1.13	1.00	1.46 ^b	1.06				1.83	1.99	0.96					1.88		0.99
48 of 90	Expected	2.00	1.00	4.00	2.00	1.00	1.00			3.00	1.00	1.00					1.00		1.00
	Actual	1.94	1.17	3.68	1.02 ^b	0.98	1.00			2.76	0.97	1.00					0.98		0.80
49 of 90	Expected	1.00		4.00	2.00	1.00	1.00		1.00	2.00		1.00			1.00	1.00			3.00
	Actual	1.00		4.04	0.94 ^b	1.07	1.09		0.79 ^c	2.82		1.21			1.06	1.13			1.92 ^c
50 of 90	Expected	3.00		3.00	1.00	3.00	2.00		1.00	1.00					1.00	1.00			2.00
	Actual	2.67		2.73	0.59 ^b	2.62	2.10		0.83 ^c	1.00					1.13	0.80			0.99 ^c
51 of 90	Expected	5.00	1.00	1.00	1.00	3.00	1.00			1.00			1.00		1.00	1.00			
	Actual	4.50	1.14	1.05	0.50 ^b	3.00	1.07			0.98			1.00		1.00	0.90			
52 of 90	Expected	5.00	2.00	1.00		3.00				1.00		1.00	1.00				3.00		1.00
	Actual	4.76	1.90	1.20		3.12				1.03		1.05	1.00				2.73		1.02
53 of 90	Expected	3.00	2.00	1.00		1.00	1.00			1.00		1.00	1.00	3.00	1.00	2.00			1.00
	Actual	3.00	1.87	1.16		1.18	1.09			1.00		0.90	1.00	2.91	1.02	1.63			0.99
54 of 90	Expected	1.00	1.00	2.00		2.00	1.00			1.00		1.00		5.00	1.00	1.00			2.00
	Actual	0.97	1.07	1.96		2.12	0.97			1.08		0.89		5.00	0.97	0.82			1.91
55 of 90	Expected			2.00	1.00	3.00	1.00		1.00	2.00				4.00	2.00	1.00			1.00
	Actual			1.98	0.45 ^b	2.98	1.08		1.06	1.96				4.00	1.76	0.91			1.12
56 of 90	Expected	1.00		2.00	1.00	2.00		1.00	1.00	2.00					4.00	1.00		1.00	2.00
	Actual	0.76		2.10	0.57 ^b	2.14		0.71	0.89	2.12					3.82	1.00		1.19	1.73
57 of 90	Expected	2.00	1.00	2.00	1.00		1.00	1.00			1.00				5.00	1.00			3.00
	Actual	1.94	1.00	1.99	0.49 ^b		1.08	1.20			1.08				4.66	0.97			2.74
58 of 90	Expected	2.00	2.00	1.00			1.00	1.00		1.00	1.00				2.00	1.00			2.00
	Actual	2.04	2.00	0.92			1.06	1.11		0.95	1.06				2.01	1.02		1.94	1.61
59 of 90	Expected	2.00	2.00	1.00			1.00			2.00	1.00			2.00	1.00	3.00		2.00	1.00
	Actual	2.02	2.00	0.94			1.04			1.82	0.96			2.09	1.07	2.62		1.73	0.75
60 of 90	Expected	4.00	2.00	1.00		1.00				2.00				2.00		4.00	1.00	1.00	
	Actual	3.82	2.00	1.01		1.01				1.76				2.14		3.77	0.00 ^a	0.86	
61 of 90	Expected	4.00	2.00			1.00		1.00	1.00	1.00				2.00		3.00	1.00		
	Actual	3.42	2.11			0.99		1.05	1.00	0.97				2.16		2.85	0.00 ^a		
62 of 90	Expected	3.00	1.00	2.00		1.00	1.00	1.00	2.00	1.00				1.00	1.00	2.00	2.00		
	Actual	2.83	1.03	1.92		0.99	1.00	1.04	1.93	1.00				1.15	1.00	1.74	0.00 ^a		
63 of 90	Expected	1.00		2.00			1.00	1.00	3.00	2.00		1.00		2.00	1.00	2.00	1.00	1.00	
	Actual	1.00		1.79			1.06	1.05	1.78 ^c	2.02		0.92		2.13	1.05	1.70	0.00 ^a	1.20	

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)
64 of 90	Expected	2.00	1.00	1.00			1.00		3.00	3.00		3.00		1.00		1.00	1.00	1.00	
	Actual	2.00	1.09	0.98			1.07		1.63 ^c	2.77		2.78		1.16		0.85	0.00 ^a	0.96	
65 of 90	Expected	2.00	1.00					1.00	2.00	3.00		2.00	2.00	1.00	1.00	2.00	1.00		
	Actual	2.00	1.17					0.90	2.02	2.85		1.70	1.81	1.13	0.96	1.71	0.00 ^a		
66 of 90	Expected	1.00				3.00		1.00	2.00	4.00		2.00	2.00		1.00	1.00			
	Actual	1.24				3.31		0.81	1.63	3.64		1.92	1.93		1.00	0.71			
67 of 90	Expected	2.00				4.00			1.00	4.00	1.00		2.00		1.00				
	Actual	2.21				4.18			0.83	3.80	1.06		2.03		1.00				
68 of 90	Expected	3.00		1.00	1.00	5.00	1.00		1.00	4.00	1.00							1.00	
	Actual	3.00		0.97	0.56 ^b	4.98	0.90		0.79	3.77	1.23							0.82	
69 of 90	Expected	2.00		1.00	2.00	3.00	1.00		2.00	2.00	1.00			1.00	1.00			2.00	
	Actual	1.83		0.73	0.91 ^b	2.93	1.09		1.80	2.00	0.73			1.20	1.11			1.84	
70 of 90	Expected	1.00		1.00	1.00	2.00	1.00		4.00	2.00				2.00	1.00			2.00	
	Actual	1.10		1.00	0.58 ^b	1.70	1.04		2.85 ^c	2.01				2.29	0.88			1.87	
71 of 90	Expected		1.00	1.00		3.00	1.00	1.00	3.00	4.00				2.00	1.00				
	Actual		1.00	0.95		2.47	1.13	1.25	1.66 ^c	3.70				2.17	1.00				
72 of 90	Expected	1.00	1.00			2.00	1.00	2.00	2.00	4.00			1.00	1.00	1.00	1.00			
	Actual	1.00	0.88			1.59	1.14	2.17	1.47 ^c	3.74			1.09	0.75	0.97	0.66			
73 of 90	Expected	1.00	1.00			1.00	2.00	2.00	1.00	3.00			1.00	1.00	3.00	1.00		1.00	
	Actual	1.00	0.79			0.91	1.90	2.07	1.00	2.64			1.04	1.11	2.92	0.78		1.03	
74 of 90	Expected	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00			1.00	1.00	3.00	1.00		1.00	1.00
	Actual	0.91	1.00	0.88	0.66 ^b	1.13	1.09	1.13	0.81	1.86			1.20	1.12	2.99	0.82		1.19	1.00
75 of 90	Expected	1.00	2.00	1.00	1.00	1.00	2.00		1.00	2.00	1.00			1.00	1.00				2.00
	Actual	0.98	2.26	0.91	0.54 ^b	1.02	2.15		1.03	1.97	0.98			1.15	0.65				2.00
76 of 90	Expected	1.00	4.00		1.00		1.00			3.00	1.00			2.00	1.00	1.00	1.00		2.00
	Actual	0.89	3.78		0.65 ^b		1.12			2.81	0.92			1.76	0.71	1.00	0.00 ^a		1.77
77 of 90	Expected	1.00	5.00				1.00	1.00		2.00	1.00			2.00	1.00	1.00	1.00		2.00
	Actual	1.00	4.73				1.14	0.98		1.98	1.17			1.87	1.00	1.15	0.00 ^a		1.94
78 of 90	Expected	2.00	5.00					1.00		2.00	1.00				1.00	1.00	1.00		1.00
	Actual	1.84	4.72					1.07		1.84	0.88				1.00	1.12	0.00 ^a		0.96
79 of 90	Expected	4.00	4.00			1.00	2.00	1.00		2.00	1.00				2.00				1.00
	Actual	3.66	3.68			1.02	1.94	0.84		1.74	0.99				2.00				0.86
80 of 90	Expected	3.00	2.00		1.00	1.00	3.00			3.00	1.00		1.00		1.00	1.00		1.00	
	Actual	2.63	2.00		0.54 ^b	0.91	3.14			2.74	0.85		1.05		0.91	0.75		0.85	
81 of 90	Expected	3.00	3.00	1.00	1.00		2.00			1.00	1.00		1.00			2.00	1.00	1.00	1.00
	Actual	3.29	2.89	0.80	0.62 ^b		2.00			1.27	1.08		1.21			2.05	0.00 ^a	1.13	0.94
82 of 90	Expected	1.00	2.00	1.00					1.00	3.00	2.00		1.00	1.00		2.00	1.00	1.00	1.00
	Actual	1.20	2.00	0.71					1.27	3.16	2.17		1.20	1.16		2.17	0.00 ^a	1.14	0.81
83 of 90	Expected	3.00	1.00			1.00			1.00	3.00	2.00			2.00	1.00	2.00			1.00
	Actual	2.71	0.77			0.97			0.95	2.69	1.84			2.05	1.00	1.69			0.83
84 of 90	Expected	2.00		1.00		1.00	1.00		1.00	3.00	1.00		1.00	2.00	2.00	1.00	1.00		1.00
	Actual	1.89		0.99		1.02	1.06		0.90	2.67	0.96		0.80	2.00	1.98	0.88	0.00 ^a		0.92
85 of 90	Expected	2.00		2.00		1.00	4.00		1.00	2.00			1.00		3.00		1.00	1.00	1.00
	Actual	2.00		1.71		1.23	3.55		1.01	2.07			0.92		2.95		0.00 ^a	0.96	0.81
86 of 90	Expected	2.00	1.00	1.00			3.00	1.00	1.00	1.00			1.00		3.00		1.00	2.00	1.00
	Actual	1.90	1.26	0.97			3.09	1.13	0.71	1.04			1.00		3.06		0.00 ^a	1.89	1.11
87 of 90	Expected	1.00	3.00	1.00			2.00	1.00	1.00	2.00			1.00	2.00	2.00		1.00	1.00	
	Actual	0.93	2.92	0.96			1.85	1.18	0.80	1.80			1.06	2.00	1.70		0.00 ^a	0.69	

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)
88 of 90	Expected	1.00	3.00		1.00					6.00			1.00	2.00	2.00		1.00		1.00
	Actual	1.00	3.00		0.61 ^b					4.86			0.82	2.03	1.80		0.00 ^a		0.84
89 of 90	Expected				1.00		2.00		1.00	7.00			1.00	1.00	1.00		1.00	1.00	2.00
	Actual				0.57 ^b		1.82		0.85	5.55			0.90	1.00	1.14		0.00 ^a	0.75	2.05
90 of 90	Expected		1.00	1.00			2.00		1.00	4.00				1.00	1.00			1.00	2.00
	Actual		1.09	0.91			1.56		0.83	3.38				1.00	0.84			0.65	1.98

^aTrp was completely destroyed during hydrolysis
^bCys was partially destroyed during hydrolysis
^cVal-Ile, Val-Val, Ile-Ile and/or Ile-Val bonds were only partially destroyed during hydrolysis

Date: 11 OCT 2011

Signature: *Dorothy C. Young*

Title: Technical Manager, BEI Authentication

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