

Peptide Array, Hepatitis C Virus, K3a/650, NS3 Protein

Catalog No. NR-4066

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Product Description: The 97-peptide array spans the NS3 protein of hepatitis C virus, K3a/650 (genotype 3a; GenPept: BAA06044). Peptides are 15- to 19-mers, with 11 or 12 amino acid overlaps.

Lot: T5262-1 to T5262-97

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 97	4/14/2011	18	1 APITAYAQQTRGLLGTV 18	1873.2	0.49	98.9%	89.1%
2 of 97	4/14/2011	18	7 AQQTRGLLGTV/SLTGR 24	1872.17	0.06	95.8%	84.6%
3 of 97	4/14/2011	17	14 LGTV/SLTGRDKNVVA 30	1744.04	0.44	99.5%	82.7%
4 of 97	4/14/2011	17	20 SLTGRDKNVAGEVQVL 36	1785.05	0.09	99.4%	83.5%
5 of 97	4/14/2011	18	26 KNVAGEVQVLSTATQTF 43	1892.16	0.32	91.1%	89.2%
6 of 97	4/14/2011	16	33 VQVLSTATQTF LGTTV 48	1665.92	0.82	85.1%	87.5%
7 of 97	4/14/2011	18	38 TATQTF LGTTVGGVMWTV 55	1870.17	0.73	80.4%	89.1%
8 of 97	4/14/2011	18	45 GTTVGGVMWTVYHGAGSR 62	1836.07	0.08	89.2%	84.3%
9 of 97	4/14/2011	18	52 MWTVYHGAGSRTLAVGKH 69	1971.29	-0.15	97.8%	77.7%
10 of 97	4/14/2011	17	59 AGSRTLAVGKHPALQMY 75	1800.13	-0.07	96.3%	79.7%
11 of 97	4/14/2011	18	65 AGVKHPALQMYTNVDQDL 82	2000.28	-0.39	97.8%	85.4%
12 of 97	4/14/2011	16	72 LQMYTNVDQDLVGPWA 87	1850.1	-0.17	96.4%	88.0%
13 of 97	4/14/2011	18	77 NVDQDLVGPWPAPPGAKSL 94	1864.1	-0.31	98.4%	89.1%
14 of 97	4/14/2011	19	84 GWPAPPGAKSLEPCTCGSA 102	1829.1	-0.21	98.8%	88.9%
15 of 97	4/14/2011	18	92 KSLEPCTCGSADLYLVTR 109	1956.28	0.04	93.6%	85.3%
16 of 97	4/14/2011	18	99 CGSADLYLVTRDADVIPA 116	1879.14	0.48	98.2%	89.2%
17 of 97	4/14/2011	19	106 LVTRDADVIPARRRGDSTA 124	2069.33	-0.56	99.1%	78.6%
18 of 97	4/14/2011	17	114 IPARRRGDSTASLLSPR 130	1853.13	-0.74	99.4%	76.5%
19 of 97	4/14/2011	17	120 GDSTASLLSPRPLARLK 136	1782.09	-0.25	99.5%	79.6%
20 of 97	4/14/2011	18	126 LLSRPLARLKSSGGPV 143	1805.17	-0.01	100.0%	79.5%
21 of 97	4/14/2011	18	133 ARLKSSGGPVMCPSGHV 150	1740.05	-0.02	90.5%	79.0%
22 of 97	4/14/2011	18	140 GGPVMCPSGHVAGIFRAA 157	1727.05	0.68	91.8%	83.5%
23 of 97	4/14/2011	18	147 SGHVAGIFRAAVCTRGVA 164	1772.08	0.82	96.1%	79.5%
24 of 97	4/14/2011	17	154 FRAAVCTRGVAKALQFI 170	1851.26	0.85	90.6%	81.3%
25 of 97	4/14/2011	16	160 TRGVAKALQFIPVETL 175	1743.1	0.51	97.9%	83.6%
26 of 97	4/14/2011	16	165 KALQFIPVETLSTQAR 180	1802.12	0	94.5%	84.1%

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Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC ^a	Peptide Content ^b
27 of 97	4/14/2011	15	170 IPVETLSTQARSPSF 184	1632.85	-0.09	95.5%	87.4%
28 of 97	4/14/2011	19	174 TLSTQARSPSFSDNSTPPA 192	1964.09	-0.83	93.6%	89.6%
29 of 97	4/14/2011	18	182 PSFSDNSTPPAVPQSYQV 199	1921.07	-0.7	93.0%	89.4%
30 of 97	4/14/2011	16	189 TPPAVPQSYQVGYLHA 204	1727.95	-0.23	83.1%	88.0%
31 of 97	4/14/2011	17	194 PQSYQVGYLHAPTGSVK 210	1789.98	-0.8	89.3%	84.0%
32 of 97	4/14/2011	18	200 GYLHAPTGSVKSTKVPAA 217	1741.98	-0.35	95.0%	79.3%
33 of 97	4/14/2011	17	207 GSGKSTKVPAAAYVAQGY 223	1683.9	-0.31	95.7%	82.5%
34 of 97	4/14/2011	16	213 KVPAAYVAQGYNVLVL 228	1705.05	0.89	96.4%	88.2%
35 of 97	4/14/2011	17	218 YVAQGYNVLVLNPSVAA 234	1778.05	0.82	97.5%	88.6%
36 of 97	4/14/2011	18	224 NVLVLNPSVAATLGFSGF 241	1806.11	1.19	90.9%	88.5%
37 of 97	4/14/2011	18	231 SVAATLGFSGFMSRAYGI 248	1835.13	0.85	90.2%	88.7%
38 of 97	4/14/2011	16	238 FGSFMSRAYGIDPNIR 253	1831.1	-0.19	88.8%	84.3%
39 of 97	4/14/2011	17	243 SRAYGIDPNIRTGNRTV 259	1890.1	-0.88	92.6%	80.5%
40 of 97	4/14/2011	17	249 DPNIRTGNRTVTTGAKL 265	1814.05	-0.84	100.0%	79.9%
41 of 97	4/14/2011	18	255 GNRTVTTGAKLTYSTYGK 272	1918.15	-0.78	88.5%	80.8%
42 of 97	4/14/2011	18	262 GAKLTYSTYGKFLAGGGC 279	1794.08	0.11	80.6%	84.3%
43 of 97	4/14/2011	18	269 TYGKFLAGGGCSGGAYDV 286	1722.91	0.17	100.0%	88.3%
44 of 97	4/14/2011	18	276 GGGCSGGAYDVIIICDDCH 293	1741.91	0.26	91.3%	88.4%
45 of 97	4/14/2011	18	283 AYDVIICDDCHAQDATSI 300	1953.15	0.26	87.6%	89.3%
46 of 97	4/14/2011	18	290 DDCHAQDATSILGIGTVL 307	1829.03	0.37	100.0%	88.9%
47 of 97	4/14/2011	17	297 ATSILGIGTVLDQAETA 313	1659.87	0.71	100.0%	87.9%
48 of 97	4/14/2011	18	303 IGTVLDQAETAGVRLTVL 320	1856.17	0.79	93.9%	89.0%
49 of 97	4/14/2011	18	310 AETAGVRLTVLATATPPG 327	1724.99	0.47	84.6%	88.3%
50 of 97	4/14/2011	17	317 LTVLATATPPGSITVPH 333	1674.97	0.71	81.6%	88.0%
51 of 97	4/14/2011	18	323 ATPPGSITVPHSNIEEVA 340	1819.02	-0.05	92.3%	88.5%
52 of 97	4/14/2011	18	330 TVPHSNIEEVALGSEGEI 347	1881.04	-0.13	89.3%	89.2%
53 of 97	4/14/2011	18	337 EEVALGSEGEIPFYGKAI 354	1909.14	0.03	97.9%	89.3%
54 of 97	4/14/2011	17	344 EGEIPFYGKAIPIACIK 360	1849.24	0.4	93.9%	84.3%
55 of 97	4/14/2011	18	350 YGKAIPIACIKGGRHLIF 367	1957.43	0.62	99.1%	77.4%
56 of 97	4/14/2011	17	357 ACIKGGRHLIFCHSKKK 373	1926.4	-0.34	100.0%	68.0%
57 of 97	4/14/2011	18	363 RHLIFCHSKKKCDKMASK 380	2160.68	-0.87	100.0%	68.5%
58 of 97	4/14/2011	17	370 SKKKCDKMASKLRGMGL 386	1881.37	-0.84	100.0%	70.2%
59 of 97	4/14/2011	18	376 KMASKLRGMGLNAVAYYR 393	2029.47	-0.19	100.0%	78.1%
60 of 97	4/14/2011	18	383 GMGLNAVAYYRGLDVSVI 400	1898.23	0.78	100.0%	89.4%
61 of 97	4/14/2011	18	390 AYYRGLDVSVIPTGDVV 407	1925.19	0.46	93.2%	89.4%
62 of 97	4/14/2011	18	397 VSVIPTGDVVVCATDAL 414	1760.05	1.31	88.9%	88.5%
63 of 97	4/14/2011	15	404 GDVVVCATDALMTGF 418	1498.75	1.2	92.9%	86.8%
64 of 97	4/14/2011	18	408 VCATDALMTGFTGDFDSV 425	1850.07	0.64	90.5%	89.1%
65 of 97	4/14/2011	18	415 MTGFTGDFDSVIDCNVAV 432	1891.12	0.66	84.4%	89.2%
66 of 97	4/14/2011	17	422 FDSVIDCNVAVEQYVDF 438	1963.17	0.48	Crude	89.6%
67 of 97	4/14/2011	17	428 CNVAVEQYVDFSLDPTF 444	1947.17	0.26	84.6%	89.5%
68 of 97	4/14/2011	19	433 EQYVDFSLDPTFSIETCTA 451	2166.36	-0.09	92.6%	90.3%
69 of 97	4/14/2011	18	441 DPTFSIETCTAPQDAVSR 458	1938.12	-0.43	92.6%	89.5%
70 of 97	4/14/2011	17	448 TCTAPQDAVSRQRGR 464	1889.1	-1.36	93.4%	76.8%
71 of 97	4/14/2011	17	454 DAVSRQRGRGRTGRGRL 470	1928.16	-1.63	97.6%	71.4%
72 of 97	4/14/2011	18	459 SQRGRGRTGRGRLGTYRYV 476	2139.43	-1.61	96.4%	72.8%
73 of 97	4/14/2011	16	466 GRGRLGTYRYVTPGER 481	1838.07	-1.29	93.8%	76.5%

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Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC ^a	Peptide Content ^b
74 of 97	4/14/2011	16	471 GTYRYVTPGERPSGMF 486	1818.06	-0.8	91.5%	84.2%
75 of 97	4/14/2011	16	476 VTPGERPSGMFDSVVL 491	1690.95	0.21	82.1%	88.0%
76 of 97	4/14/2011	17	481 RPSGMFDSVVLCECYDA 497	1892.17	0.22	96.0%	89.2%
77 of 97	4/14/2011	18	487 DSVVLCECYDAGCSWYDL 504	2041.28	0.32	86.7%	89.9%
78 of 97	4/14/2011	18	494 CYDAGCSWYDLQPAETTV 511	2022.21	-0.28	98.2%	89.9%
79 of 97	4/14/2011	17	501 WYDLQPAETTVRLRAYL 517	2095.4	-0.4	99.8%	86.0%
80 of 97	4/14/2011	18	507 AETTVRLRAYLSTPGLPV 524	1944.28	0.17	86.0%	85.0%
81 of 97	4/14/2011	18	514 RAYLSTPGLPVCQDHLDL 531	1998.31	-0.05	88.9%	85.5%
82 of 97	4/14/2011	16	521 GLPVCQDHLDLWESVF 536	1858.12	0.26	80.6%	89.1%
83 of 97	4/14/2011	18	525 CQDHLDLWESVFTGLTHI 542	2114.38	0.08	100.0%	85.9%
84 of 97	4/14/2011	16	532 WESVFTGLTHIDAHFL 547	1873.11	0.42	99.4%	84.6%
85 of 97	4/14/2011	17	537 TGLTHIDAHFLSQTQA 553	1868.1	-0.33	84.2%	80.4%
86 of 97	4/14/2011	18	543 DAHFLSQTQAQLNFSYL 560	2040.28	-0.25	80.9%	85.6%
87 of 97	4/14/2011	18	550 TKQAQLNFSYLTAYQATV 567	1976.23	-0.02	83.7%	89.5%
88 of 97	4/14/2011	17	557 FSYLTAYQATVCARAQA 573	1864.13	0.35	83.4%	89.1%
89 of 97	4/14/2011	16	563 YQATVCARAQAPPSW 578	1745.99	-0.38	91.2%	88.5%
90 of 97	4/14/2011	18	568 CARAQAPPSWDETWKCL 585	2059.37	-0.71	87.2%	85.8%
91 of 97	4/14/2011	18	575 PPSWDETWKCLVRLKPTL 592	2169.59	-0.56	81.2%	82.8%
92 of 97	4/14/2011	18	582 WKCLVRLKPTLHGPTPLL 599	2072.61	0.15	96.3%	78.3%
93 of 97	4/14/2011	17	589 KPTLHGPTLLYRLGPV 605	1859.26	-0.12	97.0%	80.3%
94 of 97	4/14/2011	17	595 PTLLYRLGPVQNEICL 611	1926.33	0.25	84.4%	89.4%
95 of 97	4/14/2011	18	601 RLGVPQNEICLTHPITKY 618	2082.47	-0.28	92.9%	82.4%
96 of 97	4/14/2011	18	608 EICLTHPITKYVMACMSA 625	2011.49	0.76	97.3%	84.9%
97 of 97	4/14/2011	17	615 ITKYVMACMSADLEVTT 631	1876.26	0.68	95.4%	89.1%

^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 97	Expected	3.00	1.00			2.00	2.00		2.00	2.00				1.00		3.00		1.00	1.00
	Actual	3.00	0.99			1.67	1.88		1.21 ^a	1.94				1.04		2.65		1.04	0.82 ^a
2 of 97	Expected	1.00	2.00			2.00	3.00		1.00	3.00					1.00	4.00			1.00
	Actual	1.14	2.00			1.65	2.85		0.66 ^a	3.12					1.06	3.64			0.74 ^a
3 of 97	Expected	1.00	1.00	2.00			2.00		1.00	2.00	1.00				1.00	3.00			3.00
	Actual	0.93	1.11	2.10			2.00		0.53 ^a	2.03	0.96				1.00	2.64			1.38 ^a
4 of 97	Expected	1.00	1.00	2.00		2.00	2.00			2.00	1.00				1.00	1.00			4.00
	Actual	1.00	1.10	1.66		1.64	1.96			1.78	0.95				0.90	1.02			2.44 ^a
5 of 97	Expected	2.00		1.00		3.00	1.00			1.00	1.00		1.00		1.00	3.00			4.00
	Actual	2.00		0.96		2.95	1.12			0.97	0.99		0.97		1.02	2.72			2.32 ^a
6 of 97	Expected	1.00				2.00	1.00			2.00			1.00		1.00	5.00			3.00
	Actual	1.00				1.75	1.09			1.75			0.86		1.00	4.78			2.70
7 of 97	Expected	1.00				1.00	3.00			1.00		1.00	1.00			6.00	1.00		3.00
	Actual	1.00				0.85	2.94			1.11		1.01	0.94			5.67	0.00 ^b		2.80

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)
8 of 97	Expected	1.00	1.00				5.00	1.00				1.00			1.00	3.00	1.00	1.00	3.00
	Actual	1.00	1.12				4.67	1.10				0.96			1.06	2.63	0.00 ^b	0.88	2.75
9 of 97	Expected	2.00	1.00				3.00	2.00		1.00	1.00	1.00			1.00	2.00	1.00	1.00	2.00
	Actual	1.88	0.97				2.95	2.29		0.97	1.04	0.95			1.00	1.84	0.00 ^b	1.14	1.70
10 of 97	Expected	3.00	1.00			1.00	2.00	1.00		2.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
	Actual	2.64	1.00			0.98	1.90	1.13		1.85	0.98	1.01		1.04	0.90	0.99		0.93	0.70
11 of 97	Expected	2.00		3.00		2.00	1.00	1.00		2.00	1.00	1.00		1.00		1.00		1.00	2.00
	Actual	1.77		2.66		1.90	0.94	1.05		1.90	0.77	0.97		1.09		1.00		0.88	1.75
12 of 97	Expected	1.00		3.00		2.00	1.00			2.00		1.00		1.00		1.00	1.00	1.00	2.00
	Actual	0.88		2.89		1.70	0.95			1.69		0.99		1.01		1.00	0.00 ^b	1.11	1.73
13 of 97	Expected	2.00		3.00		1.00	2.00			2.00	1.00			3.00	1.00		1.00		2.00
	Actual	2.00		2.86		0.98	2.15			2.11	0.94			2.94	1.00		0.00 ^b		1.97
14 of 97	Expected	3.00			2.00	1.00	3.00			1.00	1.00			4.00	2.00	1.00	1.00		
	Actual	2.88			0.92 ^c	1.01	3.20			1.10	1.00			3.87	1.96	0.70	0.00 ^b		
15 of 97	Expected	1.00	1.00	1.00	2.00	1.00	1.00			3.00	1.00			1.00	2.00	2.00		1.00	1.00
	Actual	1.02	1.04	0.85	0.98 ^c	0.80	1.02			2.66	0.80			1.00	1.75	1.69		1.04	0.94
16 of 97	Expected	3.00	1.00	3.00	1.00		1.00		1.00	2.00				1.00	1.00	1.00		1.00	2.00
	Actual	2.69	1.04	2.80	0.37 ^c		1.00		0.53 ^a	1.74				1.04	0.99	0.90		0.87	1.47 ^a
17 of 97	Expected	3.00	4.00	3.00			1.00		1.00	1.00				1.00	1.00	2.00			2.00
	Actual	3.00	3.96	2.75			1.24		0.56 ^a	1.09				1.17	0.96	2.00			1.62 ^a
18 of 97	Expected	2.00	4.00	1.00			1.00		1.00	2.00				2.00	3.00	1.00			
	Actual	2.00	3.79	0.89			1.05		0.83	1.88				2.06	2.85	0.93			
19 of 97	Expected	2.00	2.00	1.00			1.00			4.00	1.00			2.00	3.00	1.00			
	Actual	1.76	2.15	0.85			1.00			4.00	0.97			2.13	2.71	1.02			
20 of 97	Expected	1.00	2.00				3.00			4.00	1.00			3.00	3.00				1.00
	Actual	1.11	2.10				2.71			3.65	1.00			2.78	2.70				1.05
21 of 97	Expected	1.00	1.00		1.00		4.00	1.00		1.00	1.00	1.00		2.00	3.00				2.00
	Actual	1.00	1.12		0.60 ^c		3.77	0.96		1.14	0.98	1.13		2.13	2.82				1.96
22 of 97	Expected	3.00	1.00		1.00		4.00	1.00	1.00			1.00	1.00	2.00	1.00				2.00
	Actual	2.72	0.92		0.65 ^c		3.84	0.88	0.97			1.07	1.10	1.82	0.97				2.00
23 of 97	Expected	4.00	2.00		1.00		3.00	1.00	1.00				1.00		1.00	1.00			3.00
	Actual	3.65	1.91		0.56 ^c		3.02	1.08	0.89				1.00		0.99	0.80			2.65
24 of 97	Expected	4.00	2.00		1.00	1.00	1.00		1.00	1.00	1.00			2.00		1.00			2.00
	Actual	3.68	2.00		0.51 ^c	0.94	1.10		0.90	1.09	0.88		1.90			0.94			1.80
25 of 97	Expected	2.00	1.00			2.00	1.00		1.00	2.00	1.00		1.00	1.00		2.00			2.00
	Actual	2.00	1.14			1.75	1.11		0.90	1.73	0.84		0.84	1.09		1.71			1.83
26 of 97	Expected	2.00	1.00			3.00			1.00	2.00	1.00		1.00	1.00	1.00	2.00			1.00
	Actual	1.83	1.00			2.69			0.80	1.75	1.00		0.87	1.05	0.90	1.70			1.06
27 of 97	Expected	1.00	1.00			2.00			1.00	1.00			1.00	2.00	3.00	2.00			1.00
	Actual	1.09	1.14			2.00			0.94	1.06			0.98	2.00	3.00	1.90			1.10
28 of 97	Expected	2.00	1.00	2.00		1.00				1.00			1.00	3.00	5.00	3.00			
	Actual	2.16	1.10	1.97		0.92				1.15			1.11	3.00	4.68	2.71			
29 of 97	Expected	1.00		2.00		2.00							1.00	4.00	4.00	1.00		1.00	2.00
	Actual	1.00		1.68		1.75							1.04	3.69	3.65	0.99		1.05	2.00
30 of 97	Expected	2.00				2.00	1.00	1.00		1.00				3.00	1.00	1.00		2.00	2.00
	Actual	1.84				1.96	0.87	1.00		0.96				2.93	0.95	0.93		1.80	1.98
31 of 97	Expected	1.00				2.00	3.00	1.00		1.00	1.00			2.00	2.00	1.00		2.00	1.00
	Actual	0.96				1.98	2.78	1.10		1.03	0.96			2.00	1.80	0.88		1.89	1.13

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)
32 of 97	Expected	3.00					3.00	1.00		1.00	2.00			2.00	2.00	2.00		1.00	1.00
	Actual	2.71					3.00	1.10		1.20	1.97			1.98	1.86	1.65		1.15	1.02
33 of 97	Expected	3.00				1.00	3.00				2.00			1.00	2.00	1.00		2.00	2.00
	Actual	2.75				0.89	2.85				2.00			1.14	1.86	0.95		1.97	1.93
34 of 97	Expected	3.00		1.00		1.00	1.00			2.00	1.00			1.00				2.00	4.00
	Actual	2.74		0.97		1.00	1.10			1.80	1.00			1.16				1.88	3.64
35 of 97	Expected	3.00		2.00		1.00	1.00			2.00				1.00	1.00			2.00	4.00
	Actual	2.71		2.00		1.06	1.14			1.81				1.11	0.99			1.79	3.68
36 of 97	Expected	2.00		2.00			2.00			3.00			2.00	1.00	2.00	1.00			3.00
	Actual	2.00		1.97			1.86			2.88			1.87	1.10	1.95	0.93			2.87
37 of 97	Expected	3.00	1.00				3.00		1.00	1.00		1.00	2.00		3.00	1.00		1.00	1.00
	Actual	2.70	1.09				2.90		1.00	0.99		1.03	1.87		2.75	0.94		1.00	1.01
38 of 97	Expected	1.00	2.00	2.00			2.00		2.00			1.00	2.00	1.00	2.00			1.00	
	Actual	1.07	1.81	1.88			1.91		1.75			1.03	1.81	1.04	1.90			1.00	
39 of 97	Expected	1.00	3.00	3.00			2.00		2.00					1.00	1.00	2.00		1.00	1.00
	Actual	1.00	2.76	2.86			2.01		1.69					1.14	0.95	1.70		0.96	0.95
40 of 97	Expected	1.00	2.00	3.00			2.00		1.00	1.00	1.00			1.00		4.00			1.00
	Actual	0.99	1.80	2.76			2.08		0.95	1.00	1.15			1.14		3.61			0.96
41 of 97	Expected	1.00	1.00	1.00			3.00			1.00	2.00				1.00	5.00		2.00	1.00
	Actual	1.07	1.00	0.87			3.00			1.08	1.77				0.97	4.62		1.84	1.11
42 of 97	Expected	2.00			1.00		5.00			2.00	2.00		1.00		1.00	2.00		2.00	
	Actual	2.00			0.54 ^c		4.77			1.92	1.80		0.93		0.96	1.82		1.98	
43 of 97	Expected	2.00		1.00	1.00		6.00			1.00	1.00		1.00		1.00	1.00		2.00	1.00
	Actual	1.95		1.03	0.55 ^c		5.68			1.00	0.93		0.80		0.96	0.95		1.84	1.06
44 of 97	Expected	1.00		3.00	3.00		5.00	1.00	2.00						1.00			1.00	1.00
	Actual	1.09		3.00	1.41 ^c		4.69	1.00	0.83 ^a						0.99			1.05	0.58 ^a
45 of 97	Expected	3.00		4.00	2.00	1.00		1.00	3.00						1.00	1.00		1.00	1.00
	Actual	2.92		3.95	0.99 ^c	1.00		1.18	2.19 ^a						0.99	0.98		1.06	0.52 ^a
46 of 97	Expected	2.00		3.00	1.00	1.00	2.00	1.00	2.00	2.00					1.00	2.00			1.00
	Actual	2.00		2.74	0.55 ^c	0.94	1.99	1.14	1.91	1.94					0.94	1.74			1.00
47 of 97	Expected	3.00		1.00		2.00	2.00		2.00	2.00					1.00	3.00			1.00
	Actual	2.75		1.00		1.85	2.16		1.91	1.82					0.95	2.63			1.07
48 of 97	Expected	2.00	1.00	1.00		2.00	2.00		1.00	3.00						3.00			3.00
	Actual	2.00	0.83	1.00		1.81	1.88		1.17	2.82						2.74			2.96
49 of 97	Expected	4.00	1.00			1.00	2.00			2.00				2.00		4.00			2.00
	Actual	4.00	0.79			1.17	1.91			2.06				1.72		3.65			1.70
50 of 97	Expected	2.00					1.00	1.00	1.00	2.00				3.00	1.00	4.00			2.00
	Actual	1.81					1.00	1.19	0.98	1.74				2.93	0.97	3.71			1.99
51 of 97	Expected	2.00		1.00		2.00	1.00	1.00	2.00					3.00	2.00	2.00			2.00
	Actual	1.96		1.00		1.85	1.13	1.00	1.95					2.85	1.96	1.80			1.96
52 of 97	Expected	1.00		1.00		4.00	2.00	1.00	2.00	1.00				1.00	2.00	1.00			2.00
	Actual	1.00		1.01		3.70	1.87	1.14	1.75	1.00				1.08	1.85	0.85			1.88
53 of 97	Expected	2.00				4.00	3.00		2.00	1.00	1.00		1.00	1.00	1.00			1.00	1.00
	Actual	1.81				3.76	3.04		1.95	1.06	1.00		0.90	0.79	0.98			0.96	0.90
54 of 97	Expected	2.00			1.00	2.00	2.00		4.00		2.00		1.00	2.00				1.00	
	Actual	1.86			0.58 ^c	1.87	2.20		3.64		2.02		0.92	2.00				1.15	
55 of 97	Expected	2.00	1.00		1.00		3.00	1.00	4.00	1.00	2.00		1.00	1.00				1.00	
	Actual	2.00	1.12		0.52 ^c		3.10	0.99	3.86	0.92	2.06		0.73	0.90				1.09	
56 of 97	Expected	1.00	1.00		2.00		2.00	2.00	2.00	1.00	4.00		1.00		1.00				
	Actual	0.98	1.11		0.98 ^c		2.00	2.14	1.85	0.98	4.01		0.89		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)
57 of 97	Expected	1.00	1.00	1.00	2.00			2.00	1.00	1.00	5.00	1.00	1.00		2.00				
	Actual	1.00	0.87	0.97	0.85 ^c			1.97	0.81	0.80	4.62	1.02	0.84		1.90				
58 of 97	Expected	1.00	1.00	1.00	1.00		2.00			2.00	5.00	2.00			2.00				
	Actual	1.00	1.18	0.86	0.49 ^c		2.14			1.79	4.69	2.00			1.95				
59 of 97	Expected	3.00	2.00	1.00			2.00			2.00	2.00	2.00			1.00			2.00	1.00
	Actual	2.70	2.00	1.00			2.01			1.95	1.80	2.06			0.88			1.91	0.94
60 of 97	Expected	2.00	1.00	2.00			3.00		1.00	2.00		1.00			1.00			2.00	3.00
	Actual	2.70	1.04	1.99			2.96		0.74 ^a	2.14		1.01			0.90			2.00	2.80 ^a
61 of 97	Expected	1.00	1.00	2.00			2.00		1.00	1.00				1.00	1.00	2.00		2.00	4.00
	Actual	1.00	1.01	1.99			1.81		0.58 ^a	1.03				1.09	0.95	1.85		1.79	2.37 ^a
62 of 97	Expected	2.00		2.00	1.00		1.00		1.00	1.00				1.00	1.00	3.00			5.00
	Actual	2.00		2.02	0.50 ^c		0.98		0.62 ^a	1.10				1.16	0.99	2.79			3.30 ^a
63 of 97	Expected	2.00		2.00	1.00		2.00			1.00		1.00	1.00			2.00			3.00
	Actual	2.20		2.18	0.50 ^c		1.95			1.12		0.96	1.00			1.93			1.38 ^a
64 of 97	Expected	2.00		3.00	1.00		2.00			1.00		1.00	2.00		1.00	3.00			2.00
	Actual	2.12		3.00	0.58 ^c		2.08			1.07		1.14	1.87		0.98	2.71			1.89
65 of 97	Expected	1.00		4.00	1.00		2.00		1.00			1.00	2.00		1.00	2.00			3.00
	Actual	1.00		3.88	0.50 ^c		1.93		0.62 ^a			1.08	1.86		0.95	1.70			2.69 ^a
66 of 97	Expected	1.00		4.00	1.00	2.00			1.00				2.00		1.00			1.00	4.00
	Actual	0.89		3.95	0.46 ^c	1.85			0.52 ^a				1.93		0.85			1.00	2.95 ^a
67 of 97	Expected	1.00		3.00	1.00	2.00				1.00			2.00	1.00	1.00	1.00		1.00	3.00
	Actual	1.00		2.95	0.51 ^c	1.91				1.04			1.75	1.08	0.96	0.92		0.99	2.80
68 of 97	Expected	1.00		2.00	1.00	3.00			1.00	1.00			2.00	1.00	2.00	3.00		1.00	1.00
	Actual	1.09		1.94	0.51 ^c	2.93			0.89	1.03			1.71	1.00	1.75	2.73		1.06	1.03
69 of 97	Expected	2.00	1.00	2.00	1.00	2.00			1.00				1.00	2.00	2.00	3.00			1.00
	Actual	2.00	1.04	1.85	0.61 ^c	1.79			1.04				0.96	2.04	1.70	2.70			1.02
70 of 97	Expected	2.00	4.00	1.00	1.00	2.00	1.00							1.00	2.00	2.00			1.00
	Actual	2.12	4.00	0.99	0.58 ^c	1.84	0.90							1.22	1.95	2.07			1.12
71 of 97	Expected	1.00	6.00	1.00		1.00	3.00			1.00					2.00	1.00			1.00
	Actual	1.00	5.88	0.85		0.89	2.81			1.00					1.90	1.11			1.04
72 of 97	Expected		6.00			1.00	4.00			1.00					1.00	2.00		2.00	1.00
	Actual		5.67			0.93	3.85			1.13					1.00	1.98		1.97	1.06
73 of 97	Expected		4.00			1.00	4.00			1.00				1.00		2.00		2.00	1.00
	Actual		3.73			0.95	3.67			1.03				1.14		1.96		1.81	1.00
74 of 97	Expected		2.00			1.00	3.00					1.00	1.00	2.00	1.00	2.00		2.00	1.00
	Actual		2.01			0.99	2.88					1.10	0.99	2.00	0.95	1.76		1.70	0.87
75 of 97	Expected		1.00	1.00		1.00	2.00			1.00		1.00	1.00	2.00	2.00	1.00			3.00
	Actual		1.21	0.94		0.89	2.13			0.90		1.18	1.03	2.00	2.09	0.90			1.55 ^a
76 of 97	Expected	1.00	1.00	2.00	2.00	1.00	1.00			1.00		1.00	1.00	1.00	2.00			1.00	2.00
	Actual	0.80	1.00	1.70	0.88 ^c	1.06	1.05			1.00		0.97	1.01	0.98	1.70			1.18	0.98 ^a
77 of 97	Expected	1.00		3.00	3.00	1.00	1.00			2.00					2.00		1.00	2.00	2.00
	Actual	1.00		2.85	1.62 ^c	0.97	1.06			2.00					1.85		0.00 ^b	2.63	1.05 ^a
78 of 97	Expected	2.00		2.00	2.00	2.00	1.00			1.00				1.00	1.00	2.00	1.00	2.00	1.00
	Actual	1.86		1.79	0.88 ^c	1.80	1.13			0.94				1.04	0.99	1.90	0.00 ^b	2.00	0.93
79 of 97	Expected	2.00	2.00	1.00		2.00				3.00				1.00		2.00	1.00	2.00	1.00
	Actual	1.85	2.00	0.85		2.02				2.78				1.09		1.72	0.00 ^b	2.10	0.73
80 of 97	Expected	2.00	2.00			1.00	1.00			3.00				2.00	1.00	3.00		1.00	2.00
	Actual	1.66	2.00			0.81	1.01			2.68				1.96	0.94	2.70		1.13	1.88

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)
81 of 97	Expected	1.00	1.00	2.00	1.00	1.00	1.00	1.00		4.00				2.00	1.00	1.00		1.00	1.00
	Actual	1.00	1.02	1.84	0.53 ^c	0.98	0.95	1.00		3.60				1.94	0.98	0.96		0.96	1.00
82 of 97	Expected			2.00	1.00	2.00	1.00	1.00		3.00			1.00	1.00	1.00		1.00		2.00
	Actual			2.00	0.54 ^c	1.98	0.98	1.04		2.85			0.71	1.10	1.01		0.00 ^b		1.70
83 of 97	Expected			2.00	1.00	2.00	1.00	2.00	1.00	3.00			1.00		1.00	2.00	1.00		1.00
	Actual			1.83	0.54 ^c	1.88	1.00	1.80	0.99	2.95			0.78		1.00	1.81	0.00 ^b		1.00
84 of 97	Expected	1.00		1.00		1.00	1.00	2.00	1.00	2.00			2.00		1.00	2.00	1.00		1.00
	Actual	1.18		0.88		1.02	1.00	1.85	0.79	1.92			1.67		0.99	1.81	0.00 ^b		0.75
85 of 97	Expected	2.00		1.00		2.00	1.00	2.00	1.00	2.00	1.00		1.00		1.00	3.00			
	Actual	1.87		0.84		1.75	1.02	2.00	0.93	1.80	0.92		0.91		0.97	2.71			
86 of 97	Expected	2.00		2.00		2.00	1.00	1.00		3.00	1.00		2.00		2.00	1.00		1.00	
	Actual	1.94		1.98		1.98	0.99	1.03		2.87	1.00		1.77		1.95	0.97		1.07	
87 of 97	Expected	3.00		1.00		2.00	1.00			2.00	1.00		1.00		1.00	3.00		2.00	1.00
	Actual	2.74		1.00		2.08	0.95			1.94	0.98		0.95		1.01	2.68		1.89	1.00
88 of 97	Expected	5.00	1.00		1.00	2.00				1.00			1.00		1.00	2.00		2.00	1.00
	Actual	4.69	0.90		0.44 ^c	1.66				1.11			1.00		0.97	1.80		2.00	1.08
89 of 97	Expected	4.00	1.00		1.00	2.00								3.00	1.00	1.00	1.00	1.00	1.00
	Actual	3.65	1.06		0.53 ^c	2.00								3.13	0.95	0.75	0.00 ^b	1.04	1.02
90 of 97	Expected	3.00	1.00	1.00	2.00	2.00				1.00	1.00			3.00	1.00	1.00	2.00		
	Actual	2.88	1.11	1.00	0.90 ^c	2.12				1.05	0.94			2.95	0.99	0.96	0.00 ^b		
91 of 97	Expected		1.00	1.00	1.00	1.00				3.00	2.00			3.00	1.00	2.00	2.00		1.00
	Actual		0.94	1.02	0.48 ^c	1.01				2.90	1.96			3.00	0.96	1.80	0.00 ^b		0.99
92 of 97	Expected		1.00		1.00		1.00	1.00		5.00	2.00			3.00		2.00	1.00		1.00
	Actual		0.86		0.51 ^c		1.01	1.10		4.77	1.80			2.70		1.85	0.00 ^b		1.00
93 of 97	Expected		1.00				2.00	1.00		4.00	1.00			4.00		2.00		1.00	1.00
	Actual		0.95				2.05	1.01		3.70	0.97			3.95		1.73		0.97	1.00
94 of 97	Expected		1.00	1.00	1.00	2.00	1.00		1.00	4.00				3.00		1.00		1.00	1.00
	Actual		0.84	1.00	0.51 ^c	1.99	1.03		0.90	3.77				3.09		0.87		1.10	1.10
95 of 97	Expected		1.00	1.00	1.00	2.00	1.00	1.00	2.00	2.00	1.00			2.00		2.00		1.00	1.00
	Actual		0.97	1.07	0.51 ^c	1.96	0.95	0.94	1.80	1.97	1.04			2.00		1.80		0.93	0.92
96 of 97	Expected	2.00			2.00	1.00		1.00	2.00	1.00	1.00	2.00		1.00	1.00	2.00		1.00	1.00
	Actual	1.90			0.94 ^c	1.00		1.00	1.85	1.05	0.98	1.95		1.06	0.94	1.77		0.86	0.96
97 of 97	Expected	2.00		1.00	1.00	1.00			1.00	1.00	1.00	2.00			1.00	3.00		1.00	2.00
	Actual	1.74		1.01	0.46 ^c	1.00			0.85	1.09	0.95	1.80			0.96	2.66		0.84	1.79

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

^bTrp was completely destroyed during hydrolysis

^cCys was partially destroyed during hydrolysis

Date: 12 OCT 2011

Signature: *Dorothy C. Young*

Title: Technical Manager, BEI Authentication

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