

Peptide Pool, Human Immunodeficiency Virus Type 1 Subtype B (Consensus) Gag Region

Catalog No. HRP-12425

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Product Description:

HRP-12425 is a series of 123 peptides spanning the entire human immunodeficiency virus type 1 (HIV-1) subtype B Gag region (consensus). Most peptides are 15- or 12-mers, with 11 amino acid overlaps. Each peptide from BEI Resources Catalog No. ARP-8117 peptide array was pooled together and then distributed such that each vial contains 50 µg of each peptide, 6.15 mg total peptide.

Lot: SP1974

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The following information applies to all peptides:

- Appearance White lyophilized powder
- Mass spectral analysis Correct MW by MALDI or Electrospray
- Counter Ion Trifluoroacetate

Peptide-specific information is shown in the tables and figures below.

Table 1: Peptide Analysis

Peptide	Date of Manufacturing	Length	Sequence	Molecular Weight (amu)	Purity by HPLC ^{1,2}	Peptide Content ³
1 of 123	8/29/2022	15	MGARASVLSGGELDR	1519.02	99.4%	83.3%
2 of 123	8/29/2022	15	ASVLSGGELDRWEKI	1660.89	97.9%	82.4%
3 of 123	8/29/2022	15	SGGELDRWEKIRLRP	1812.05	100.0%	79.3%
4 of 123	8/29/2022	15	LDRWEKIRLRPGGKK	1852.14	96.5%	64.8%
5 of 123	8/29/2022	15	EKIRLRPGGKKKYKL	1814.22	100.0%	61.6%
6 of 123	8/29/2022	15	LRPGGKKKYKLVHIV	1765.35	94.9%	62.3%
7 of 123	8/29/2022	15	GKKKYKLVHIVWASR	1842.36	98.2%	71.3%
8 of 123	8/29/2022	15	YKLVHIVWASRELER	1927.90	99.7%	70.6%
9 of 123	8/29/2022	15	HIVWASRELERFAVN	1827.25	100.0%	81.4%
10 of 123	8/29/2022	15	ASRELERFAVNPGLL	1672.16	99.0%	95.3%
11 of 123	8/29/2022	15	LERFAVNPGLLETSE	1674.75	100.0%	67.9%
12 of 123	8/29/2022	15	AVNPGLLETSEGCRQ	1573.60	90.7%	74.8%
13 of 123	8/29/2022	15	GLLETSEGCRQILGQ	1604.03	100.0%	76.8%
14 of 123	8/29/2022	15	TSEGCRQILGQLQPS	1617.53	100.0%	78.7%
15 of 123	8/29/2022	15	CRQILGQLQPSLQTG	1641.89	100.0%	75.6%
16 of 123	8/29/2022	15	LGQLQPSLQTGSEEL	1599.68	88.8%	83.2%
17 of 123	8/29/2022	15	QPSLQTGSEELRSLY	1708.17	100.0%	86.0%
18 of 123	8/29/2022	15	QTGSEELRSLYNTVA	1667.73	96.8%	85.0%
19 of 123	8/29/2022	15	EELRSLYNTVATLYC	1775.15	87.3%	86.4%
20 of 123	8/29/2022	15	SLYNTVATLYCVHQR	1767.67	100.0%	87.1%
21 of 123	8/29/2022	15	TVATLYCVHQRIEVK	1759.98	97.3%	82.2%
22 of 123	8/29/2022	15	LYCVHQRIEVKDTKE	1860.99	100.0%	74.7%

Table 1: Peptide Analysis (continued)

Peptide	Date of Manufacturing	Length	Sequence	Molecular Weight (amu)	Purity by HPLC ^{1,2}	Peptide Content ³
23 of 123	8/29/2022	15	HQRIEVKDTKEALEK	1824.01	81.9%	68.9%
24 of 123	8/29/2022	15	EVKDTKEALEKIEEE	1789.83	95.3%	80.9%
25 of 123	8/29/2022	15	TKEALEKIEEEQNKS	1776.12	98.0%	85.0%
26 of 123	8/29/2022	15	LEKIEEEQNKSKKKA	1801.65	97.6%	71.1%
27 of 123	8/29/2022	15	EEEQNKSKKKAQQAA	1717.08	100.0%	72.6%
28 of 123	8/29/2022	15	NKSKKKAQQAADTG	1545.66	91.9%	71.1%
29 of 123	8/29/2022	14	KKAQQAADTGNSSQ	1504.97	98.4%	74.2%
30 of 123	8/29/2022	15	QAAADTGNSSQVSQN	1477.61	89.4%	86.3%
31 of 123	8/29/2022	15	DTGNSSQVSQNYPIV	1609.01	100.0%	87.7%
32 of 122	8/29/2022	15	SSQVSQNYPIVQNLQ	1705.23	100.0%	84.0%
33 of 123	8/29/2022	15	SQNYPIVQNLQGQMV	1719.11	97.4%	90.0%
34 of 123	8/29/2022	15	PIVQNLQGQMVHQAI	1675.92	92.2%	87.2%
35 of 123	8/29/2022	15	NLQGQMVHQAI SPRT	1679.81	98.5%	81.1%
36 of 123	8/29/2022	15	QMVHQAI SPRTLNAW	1752.17	100.0%	82.8%
37 of 123	8/29/2022	15	QAIS PRTLNAWVKVV	1681.97	89.1%	77.0%
38 of 123	8/29/2022	15	PRTLNAWVKVVEEKA	1740.26	95.7%	78.4%
39 of 123	8/29/2022	15	NAWVKVVEEKAFSPE	1732.72	95.1%	81.1%
40 of 123	8/29/2022	15	KVVEEKAFSPEVIPM	1703.19	99.2%	86.1%
41 of 123	8/29/2022	15	EKA FSPEVIPMFSAL	1666.16	95.7%	85.5%
42 of 123	8/29/2022	15	SPEVIPMFSALSEGA	1534.56	100.0%	89.9%
43 of 123	8/29/2022	15	IPMFSALSEGATPQD	1564.22	100.0%	95.3%
44 of 123	8/29/2022	15	SALSEGATPQDLNTM	1534.64	86.7%	91.9%
45 of 123	8/29/2022	15	EGATPQDLNTMLNTV	1604.15	97.4%	87.9%
46 of 123	8/29/2022	15	PQDLNTMLNTVGGHQ	1625.03	99.6%	88.7%
47 of 123	8/29/2022	15	NTMLNTVGGHQAMQ	1572.84	96.9%	95.2%
48 of 123	8/29/2022	15	NTVGGHQAMQMLKE	1614.72	96.9%	81.4%
49 of 123	8/29/2022	15	GHQAAMQMLKETINE	1701.10	89.5%	92.0%
50 of 123	8/29/2022	15	AMQMLKETINEEAAE	1708.07	90.4%	95.4%
51 of 123	8/29/2022	15	LKETINEEAAEWDR L	1817.10	96.4%	89.6%
52 of 123	8/29/2022	15	INEEAAEWDR LHPVH	1815.73	98.4%	82.7%
53 of 123	8/29/2022	15	AAEWDR LHPVHAGPI	1669.08	98.6%	82.2%
54 of 123	8/29/2022	15	DRLHPVHAGPIAPGQ	1564.82	100.0%	79.0%
55 of 123	8/29/2022	15	PVHAGPIAPGQMREP	1556.77	100.0%	83.5%
56 of 123	8/29/2022	15	GPIAPGQMREPRGSD	1567.76	100.0%	71.3%
57 of 123	8/29/2022	15	PGQMREPRGSDIAGT	1571.96	100.0%	85.4%
58 of 123	8/29/2022	15	REPRGSDIAGTTSTL	1560.94	98.9%	83.8%
59 of 123	8/29/2022	15	GSDIAGTTSTLQE QI	1521.07	96.9%	93.3%
60 of 123	8/29/2022	15	AGTTSTLQE QIGWMT	1624.10	93.4%	94.4%
61 of 123	8/29/2022	15	STLQE QIGWMTNPP	1716.11	100.0%	91.5%
62 of 123	8/29/2022	15	EQIGWMTNPPIPVG	1653.04	99.0%	88.2%
63 of 123	8/29/2022	15	WMTNPPIPVGEIYK	1758.90	100.0%	88.2%
64 of 123	8/29/2022	15	NPPIPVGEIYKRWII	1794.90	80.6%	80.1%

Table 1: Peptide Analysis (continued)

Peptide	Date of Manufacturing	Length	Sequence	Molecular Weight (amu)	Purity by HPLC ^{1,2}	Peptide Content ³
65 of 123	8/29/2022	15	PVGEIYKRWILGLN	1770.94	93.8%	82.5%
66 of 123	8/29/2022	15	IYKRWILGLNKIVR	1885.49	95.1%	79.9%
67 of 123	8/29/2022	15	WILGLNKIVRMYS	1803.01	100.0%	80.7%
68 of 123	8/29/2022	15	GLNKIVRMYSPTSIL	1619.82	95.8%	78.2%
69 of 123	8/29/2022	15	IVRMYSPTSILDIRQ	1792.30	98.1%	80.5%
70 of 123	8/29/2022	15	YSPTSILDIRQGPK	1704.18	100.0%	78.9%
71 of 123	8/29/2022	15	SILDIRQGPKPFRD	1771.24	84.1%	81.3%
72 of 123	8/29/2022	15	IRQGPKPFRDYVDR	1876.27	98.6%	74.7%
73 of 123	8/29/2022	15	PKEPFRDYVDRFYKT	1961.20	100.0%	74.4%
74 of 123	8/29/2022	15	FRDYVDRFYKTLRAE	1979.11	98.1%	74.0%
75 of 123	8/29/2022	15	VDRFYKTLRAEQASQ	1811.93	94.9%	82.8%
76 of 123	8/29/2022	15	YKTLRAEQASQEVKN	1765.19	87.9%	77.1%
77 of 123	8/29/2022	15	RAEQASQEVKNWMT	1806.58	100.0%	89.7%
78 of 123	8/29/2022	15	ASQEVKNWMTETLLV	1748.86	92.3%	85.6%
79 of 123	8/29/2022	15	VKNWMTETLLVQAN	1760.71	81.5%	80.1%
80 of 123	8/29/2022	15	MTETLLVQANPDCK	1676.54	92.7%	90.4%
81 of 123	8/29/2022	15	LLVQANPDCKTILK	1669.91	87.5%	92.2%
82 of 123	8/29/2022	15	NANPDCKTILKALGP	1555.06	100.0%	84.0%
83 of 123	8/29/2022	15	DCKTILKALGPAATL	1514.83	100.0%	85.2%
84 of 123	8/29/2022	15	ILKALGPAATLEEM	1587.75	99.1%	89.9%
85 of 123	8/29/2022	15	LGPAATLEEMMTACQ	1565.71	93.9%	93.0%
86 of 123	8/29/2022	15	ATLEEMMTACQGVGG	1497.75	97.2%	95.6%
87 of 123	8/29/2022	15	EMMTACQGVGGPGHK	1502.88	100.0%	87.3%
88 of 123	8/29/2022	15	ACQGVGGPGHKARVL	1449.91	93.4%	90.6%
89 of 123	8/29/2022	15	VGGPGHKARVLAEAM	1492.87	100.0%	78.6%
90 of 123	8/29/2022	15	GHKARVLAEAMSQVT	1597.63	84.6%	87.9%
91 of 123	8/29/2022	15	RVLAEAMSQVTSAT	1578.07	94.4%	93.2%
92 of 123	8/29/2022	15	EAMSQVTSATIMMQ	1641.66	90.3%	80.1%
93 of 123	8/29/2022	15	QVTSATIMMQRGNF	1697.80	91.5%	89.6%
94 of 123	8/29/2022	15	SATIMMQRGNFRNQR	1810.23	98.6%	82.4%
95 of 123	8/29/2022	15	MMQRGNFRNQRKTVK	1894.29	100.0%	79.4%
96 of 123	8/29/2022	15	GNFRNQRKTVKCFNC	1814.88	97.8%	82.4%
97 of 123	8/29/2022	15	NQRKTVKCFNCGKEG	1711.86	100.0%	83.2%
98 of 123	8/29/2022	15	TVKCFNCGKEGHIAK	1634.82	96.4%	79.6%
99 of 123	8/29/2022	15	FNCGKEGHIAKNCR	1647.77	100.0%	83.1%
100 of 123	8/29/2022	15	KEGHIAKNCRAPRKK	1736.22	96.9%	69.1%
101 of 123	8/29/2022	15	IAKNCRAPRKKGCWK	1759.22	100.0%	72.8%
102 of 123	8/29/2022	15	CRAPRKKGCWKC	1749.87	100.0%	75.7%
103 of 123	8/29/2022	15	RKKGCVKCGKEGHQM	1775.98	96.8%	72.7%
104 of 123	8/29/2022	15	CWKC	1753.73	100.0%	85.4%
105 of 123	8/29/2022	15	GKEGHQMKDCTERQA	1717.76	100.0%	75.1%
106 of 123	8/29/2022	15	HQMKDCTERQANFLG	1778.04	99.1%	79.8%

Table 1: Peptide Analysis (continued)

Peptide	Date of Manufacturing	Length	Sequence	Molecular Weight (amu)	Purity by HPLC ^{1,2}	Peptide Content ³
107 of 123	8/29/2022	15	DCTERQANFLGKIWP	1778.08	81.7%	95.5%
108 of 123	8/29/2022	15	RQANFLGKIWPSHKG	1738.98	100.0%	74.2%
109 of 123	8/29/2022	15	FLGKIWPSHKGRPGN	1694.19	100.0%	73.2%
110 of 123	8/29/2022	15	IWPSHKGRPGNFLQS	1724.08	96.8%	76.3%
111 of 123	8/29/2022	15	HKGRPGNFLQSRPEP	1720.12	100.0%	80.7%
112 of 123	8/29/2022	15	PGNFLQSRPEPTAPP	1608.06	100.0%	92.7%
113 of 123	8/29/2022	15	LQSRPEPTAPPEESF	1685.00	100.0%	89.6%
114 of 123	8/29/2022	15	PEPTAPPEESFRFGE	1689.76	100.0%	95.5%
115 of 123	8/29/2022	15	APPEESFRFGEETTT	1697.72	85.8%	91.4%
116 of 123	8/29/2022	15	ESFRFGEETTTPSQK	1743.82	100.0%	79.6%
117 of 123	8/29/2022	15	FGEETTTPSQKQEPI	1692.02	100.0%	90.6%
118 of 123	8/29/2022	15	TTTTPSQKQEPIDKEL	1714.86	100.0%	88.6%
119 of 123	8/29/2022	15	SQKQEPIDKELYPLA	1758.76	100.0%	88.1%
120 of 123	8/29/2022	15	EPIDKELYPLASLRS	1730.97	100.0%	85.7%
121 of 123	8/29/2022	15	KELYPLASLRSFLGN	1707.96	100.0%	86.1%
122 of 123	8/29/2022	15	PLASLRSFLGNDPSS	1561.04	98.8%	90.8%
123 of 123	8/29/2022	12	LRSFLGNDPSSQ	1320.67	100.0%	86.6%

¹Percent full-length peptide. HPLC peaks for both target and pyroglutamyl (pGlu) forms of Peptides 17, 18, 30, 36, 37 and 93 were counted for final purity.

²For peptides 62, 64, 112, 113, 114 and 115, cis-trans isomerization of the proline (Pro) residues in the Pro-Pro bond occurred, causing a shoulder, wide peak, or split peak on the HPLC trace.

³Remainder is salt and water

Figure 1: Amino Acid Analysis⁴

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Phe (F)	Pro (P)	Tyr (Y)	Val (V)
1 of 123	Expected	2	2	1	1	3			2					1
	Actual	2.04	1.80	1.02	1.00	3.02			2.06					1.03
2 of 123	Expected	1	1	1	2	2		1	2	1				1
	Actual	1.06	0.98	0.99	1.96	2.04		0.96	2.05	0.98				1.01
3 of 123	Expected		3	1	2	2		1	2	1		1		
	Actual		2.97	0.99	1.97	1.98		1.00	2.03	1.02		1.02		
4 of 123	Expected		3	1	1	2		1	2	3		1		
	Actual		3.10	0.95	1.02	2.11		1.03	1.93	3.01		0.93		
5 of 123	Expected		2		1	2		1	2	5		1		
	Actual		1.96		0.99	2.02		1.00	2.05	5.10		0.98		
6 of 123	Expected		1			2	1	1	2	5		1		1
	Actual		0.85			2.03	1.12	1.03	2.01	5.34		0.97		1.06
7 of 123	Expected	1	1			1	1	1	1	5				1
	Actual	1.05	0.96			1.01	1.05	0.94	1.02	5.03				0.96
8 of 123	Expected	1	2		2		1	1	2	2				1
	Actual	1.06	2.00		2.01		1.05	0.93	2.03	2.01				0.94
9 of 123	Expected	2	2	1	2		1	1	1		1			2
	Actual	2.06	1.96	1.00	2.03		1.01	0.93	1.04		1.02			1.96
10 of 123	Expected	2	2	1	2	1			3		1	1		1
	Actual	1.98	1.94	1.01	2.00	1.03			2.89		1.01	1.02		1.00
11 of 123	Expected	1	1	1	3	1			3		1	1		1
	Actual	1.05	0.95	1.00	2.96	1.02			3.01		0.99	1.00		1.00

Figure 1: Amino Acid Analysis (continued)⁴

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Phe (F)	Pro (P)	Tyr (Y)	Val (V)
12 of 123	Expected	1	1	1	3	2			2			1		1
	Actual	1.05	0.93	1.00	2.92	2.06			2.04			0.99		0.99
13 of 123	Expected		1		4	3		1	3					
	Actual		1.01		4.06	3.12		1.02	3.13					
14 of 123	Expected		1		4	2		1	2			1		
	Actual		0.96		4.07	2.10		1.02	2.09			1.04		
15 of 123	Expected		1		4	2		1	3			1		
	Actual		1.01		4.03	2.08		1.00	3.08			1.02		
16 of 123	Expected				5	2			4			1		
	Actual				5.08	2.10			4.12			1.02		
17 of 123	Expected		1		4	1			3			1		
	Actual		1.00		4.02	1.06			3.13			1.02		
18 of 123	Expected	1	1	1	3	1			2					1
	Actual	1.07	0.98	1.01	3.07	1.03			2.05					1.02
19 of 123	Expected	1	1	1	2				3					1
	Actual	1.10	1.00	1.02	1.92				3.12					1.04
20 of 123	Expected	1	1	1	1		1		2					2
	Actual	1.08	0.99	1.01	1.00		1.05		2.07					2.01
21 of 123	Expected	1	1		2		1	1	1	1				3
	Actual	1.04	0.96		1.95		1.02	1.00	1.03	0.99				2.93
22 of 123	Expected		1	1	3		1	1	1	2				2
	Actual		0.98	1.02	3.01		1.04	1.03	1.04	2.04				1.99
23 of 123	Expected	1	1	1	4		1	1	1	3				1
	Actual	1.15	0.97	0.96	3.87		0.95	0.98	1.07	3.13				1.03
24 of 123	Expected	1		1	6			1	1	3				1
	Actual	1.06		0.96	5.94			1.00	1.02	2.97				0.99
25 of 123	Expected	1		1	6			1	1	3				
	Actual	1.06		0.94	5.87			1.00	1.02	2.99				
26 of 123	Expected	1		1	5			1	1	5				
	Actual	1.02		0.99	4.96			1.00	1.01	4.95				
27 of 123	Expected	3		1	6					4				
	Actual	3.08		0.99	5.94					3.96				
28 of 123	Expected	4		2	2	1				4				
	Actual	4.04		1.99	2.00	1.01				3.95				
29 of 123	Expected	4		2	3	1				2				
	Actual	4.04		1.96	2.93	1.04				2.00				
30 of 123	Expected	3		3	3	1								1
	Actual	3.08		3.01	3.00	1.05								1.04
31 of 123	Expected			3	2	1		1				1		2
	Actual			2.88	2.00	1.06		0.99				1.03		2.04
32 of 123	Expected			2	4			1	1			1		2
	Actual			1.98	3.98			0.97	1.03			1.02		2.00
33 of 123	Expected			2	4	1		1	1			1		2
	Actual			1.96	3.94	1.04		0.97	1.02			1.00		1.99
34 of 123	Expected	1		1	4	1	1	2	1			1		2
	Actual	1.06		0.97	3.97	1.00	1.05	1.93	1.00			0.98		1.95
35 of 123	Expected	1	1	1	3	1	1	1	1			1		1
	Actual	1.06	0.92	0.98	2.97	1.01	1.04	1.01	1.01			0.98		1.00
36 of 123	Expected	2	1	1	2		1	1	1			1		1
	Actual	2.07	0.94	0.98	1.92		1.05	1.01	1.04			1.00		0.98

Figure 1: Amino Acid Analysis (continued)⁴

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Phe (F)	Pro (P)	Tyr (Y)	Val (V)
37 of 123	Expected	2	1	1	1			1	1	1		1		3
	Actual	2.05	0.98	1.00	0.96			0.98	1.03	1.02		1.00		3.01
38 of 123	Expected	2	1	1	2				1	2		1		3
	Actual	2.05	0.98	0.99	2.01				1.01	2.02		1.01		2.94
39 of 123	Expected	2		1	3					2	1	1		3
	Actual	2.08		0.93	3.05					1.96	1.02	1.02		2.97
40 of 123	Expected	1			3			1		2	1	2		3
	Actual	1.09			3.20			0.93		2.15	0.93	1.94		2.82
41 of 123	Expected	2			2			1	1	1	2	2		1
	Actual	2.16			2.13			0.95	0.99	1.08	1.81	1.96		0.94
42 of 123	Expected	2			2	1		1	1		1	2		1
	Actual	2.15			2.17	0.98		0.95	1.03		0.91	2.00		0.98
43 of 123	Expected	2		1	2	1		1	1		1	2		
	Actual	2.08		0.99	2.05	0.94		1.02	1.06		0.95	1.95		
44 of 123	Expected	2		2	2	1			2			1		
	Actual	2.06		2.11	2.05	0.93			1.97			0.97		
45 of 123	Expected	1		3	2	1			2			1		1
	Actual	1.06		3.13	2.04	0.96			1.94			0.93		1.00
46 of 123	Expected			3	2	2	1		2			1		1
	Actual			3.26	2.08	1.93	0.92		2.01			0.95		1.04
47 of 123	Expected	2		2	2	2	1		1					1
	Actual	1.95		2.10	1.93	2.02	0.90		1.02					1.08
48 of 123	Expected	2		1	3	2	1		1	1				1
	Actual	2.13		0.94	3.15	1.93	0.91		0.98	1.08				1.01
49 of 123	Expected	2		1	4	1	1	1	1	1				
	Actual	2.14		1.01	4.09	0.87	0.91	1.03	0.99	1.10				
50 of 123	Expected	3		1	5			1	1	1				
	Actual	2.85		1.07	4.83			1.01	0.96	1.05				
51 of 123	Expected	2	1	2	4			1	2	1				
	Actual	2.07	0.90	2.08	4.20			0.96	1.93	1.05				
52 of 123	Expected	2	1	2	3		2	1	1			1		1
	Actual	2.11	0.94	2.16	3.21		1.91	0.97	1.01			0.95		0.98
53 of 123	Expected	3	1	1	1	1	2	1	1			2		1
	Actual	3.17	0.95	1.10	1.08	0.94	1.87	0.95	1.03			1.90		1.00
54 of 123	Expected	2	1	1	1	2	2	1	1			3		1
	Actual	2.12	0.94	1.10	1.06	1.81	1.93	1.00	1.01			2.86		1.01
55 of 123	Expected	2	1		2	2	1	1				4		1
	Actual	2.14	0.89		2.17	1.94	0.98	1.01				3.83		1.03
56 of 123	Expected	1	2	1	2	3		1				3		
	Actual	1.09	1.76	1.07	2.13	2.86		1.00				2.84		
57 of 123	Expected	1	2	1	2	3		1				2		
	Actual	1.08	1.77	1.10	2.09	2.82		1.00				1.91		
58 of 123	Expected	1	2	1	1	2		1	1			1		
	Actual	1.07	1.77	1.09	1.05	1.88		0.98	1.00			0.98		
59 of 123	Expected	1		1	3	2		2	1					
	Actual	1.05		1.06	3.09	1.85		1.93	0.98					
60 of 123	Expected	1			3	2		1	1					
	Actual	1.03			3.12	1.88		0.99	1.00					

Figure 1: Amino Acid Analysis (continued)⁴

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Phe (F)	Pro (P)	Tyr (Y)	Val (V)
61 of 123	Expected			2	3	1		1	1			2		
	Actual			2.13	3.08	0.97		0.97	0.99			1.96		
62 of 123	Expected	2		1	3					2	1	1		3
	Actual	2.08		0.93	3.05					1.96	1.02	1.02		2.97
63 of 123	Expected			2	1	1		2		1		3		1
	Actual			2.15	1.07	0.97		2.00		1.08		2.94		1.02
64 of 123	Expected		1	1	1	1		4		1		3		1
	Actual		0.99	0.94	1.15	1.03		3.81		1.17		2.99		1.09
65 of 123	Expected		1	1	1	2		3	2	1		1		1
	Actual		0.93	1.07	1.07	1.90		2.63	2.04	1.09		0.98		1.01
66 of 123	Expected		2	1		1		4	2	2				1
	Actual		1.92	1.16		1.05		3.66	2.19	2.27				0.98
67 of 123	Expected		1	1		1		3	2	1		1		1
	Actual		0.98	1.15		1.01		2.71	2.16	1.14		1.03		1.00
68 of 123	Expected		1	1		1		2	2	1		1		1
	Actual		0.95	1.15		1.00		2.06	2.14	1.14		1.05		1.02
69 of 123	Expected		2	1	1			3	1			1		1
	Actual		1.91	1.19	1.20			3.15	1.16			1.12		0.93
70 of 123	Expected		1	1	2	1		2	1	1		2		
	Actual		0.94	1.12	2.17	0.99		2.05	1.04	1.10		2.00		
71 of 123	Expected		2	2	2	1		2	1	1	1	2		
	Actual		1.86	2.12	2.13	1.00		2.00	1.02	1.09	0.88	1.91		
72 of 123	Expected		3	2	2	1		1		1	1	2		1
	Actual		2.87	2.20	2.15	0.99		1.00		1.11	0.95	1.98		1.03
73 of 123	Expected		2	2	1					2	2	2		1
	Actual		1.90	2.29	1.09					2.25	1.97	2.02		1.08
74 of 123	Expected	1	3	2	1				1	1	2			1
	Actual	1.05	2.82	2.24	1.04				1.07	1.13	1.95			1.06
75 of 123	Expected	2	2	1	3				1	1	1			1
	Actual	2.15	1.88	1.04	3.23				1.05	1.11	0.97			0.98
76 of 123	Expected	2	1	1	4				1	2				1
	Actual	2.10	0.89	1.05	4.19				0.97	2.03				0.97
77 of 123	Expected	2	1	1	5					1				1
	Actual	2.05	0.86	1.06	5.13					1.05				0.98
78 of 123	Expected	1		1	3				2	1				2
	Actual	0.96		1.07	3.03				2.03	1.06				1.99
79 of 123	Expected	1		3	2				2	1				2
	Actual	0.98		3.03	2.05				1.96	1.05				1.92
80 of 123	Expected	1		3	2				2	1		1		1
	Actual	1.02		3.08	2.05				1.99	0.99		0.95		0.99
81 of 123	Expected	1		3	1			1	3	2		1		1
	Actual	1.03		3.11	1.02			0.97	2.94	2.09		0.95		0.97
82 of 123	Expected	2		3		1		1	2	2		2		
	Actual	2.06		3.10		0.95		0.98	2.01	2.12		1.89		
83 of 123	Expected	3		1		1		1	3	2		1		
	Actual	3.09		1.05		0.94		0.97	3.00	2.09		0.97		
84 of 123	Expected	3			2	1		1	3	1		1		
	Actual	3.11			2.08	0.94		0.98	2.99	1.05		0.96		

Figure 1: Amino Acid Analysis (continued)⁴

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Phe (F)	Pro (P)	Tyr (Y)	Val (V)
85 of 123	Expected	3			3	1			2			1		
	Actual	3.18			3.23	0.95			2.09			0.99		
86 of 123	Expected	2			3	3			1					1
	Actual	2.06			3.10	2.72			1.05					0.98
87 of 123	Expected	1			2	4	1			1		1		1
	Actual	1.05			2.01	3.85	0.96			1.08		0.94		1.00
88 of 123	Expected	2	1		1	4	1		1	1		1		2
	Actual	2.11	0.92		1.06	3.71	0.96		1.04	1.11		0.92		2.03
89 of 123	Expected	3	1		1	3	1		1	1		1		2
	Actual	3.18	0.91		1.06	2.88	0.94		1.02	1.09		0.94		2.02
90 of 123	Expected	3	1		2	1	1		1	1				2
	Actual	3.18	0.55		2.23	0.89	0.72		1.05	0.99				2.02
91 of 123	Expected	3	1	1	2				1					2
	Actual	3.09	0.86	1.10	2.10				0.98					1.97
92 of 123	Expected	2		1	3			1						1
	Actual	2.00		1.00	2.80			1.06						1.01
93 of 123	Expected	1	1	2	2	1		1			1			1
	Actual	1.09	0.86	2.13	2.04	0.98		0.95			1.01			1.02
94 of 123	Expected	1	3	2	2	1		1			1			
	Actual	1.10	2.64	2.10	2.08	0.98		1.01			0.94			
95 of 123	Expected		3	2	2	1				2	1			1
	Actual		2.66	2.19	2.09	0.97				2.15	0.92			1.01
96 of 123	Expected		2	3	1	1				2	2			1
	Actual		1.79	3.18	1.06	0.97				2.16	1.84			1.02
97 of 123	Expected		1	2	2	2				3	1			1
	Actual		0.90	2.13	2.12	1.92				3.19	0.93			1.03
98 of 123	Expected	1		1	1	2	1	1		3	1			1
	Actual	1.06		1.08	1.06	1.90	0.91	0.92		3.16	0.94			1.03
99 of 123	Expected	2	1	2	1	2	1	1		2	1			
	Actual	1.88	0.81	2.15	1.07	1.91	0.97	1.00		2.14	0.93			
100 of 123	Expected	2	2	1	1	1	1	1		4	0	1		
	Actual	2.06	1.80	1.08	1.10	0.92	0.98	0.99		4.22	0.00	0.95		
101 of 123	Expected	2	2	1		1		1		4		1		
	Actual	2.19	1.80	1.02		1.01		0.96		4.12		0.99		
102 of 123	Expected	1	2		1	2				4		1		
	Actual	0.94	1.75		1.11	2.01				4.41		0.97		
103 of 123	Expected		1		2	3	1			4				
	Actual		0.92		2.18	3.06	0.98			3.94				
104 of 123	Expected			1	2	2	1			3				
	Actual			1.04	2.09	1.92	0.93			3.08				
105 of 123	Expected	1	1	1	4	2	1			2				
	Actual	1.05	0.87	1.10	4.48	1.98	0.95			1.84				
106 of 123	Expected	1	1	2	3	1	1		1	1	1			
	Actual	0.96	0.91	2.12	3.36	1.05	0.95		1.07	0.90	0.99			
107 of 123	Expected	1	1	2	2	1		1	1	1	1	1		
	Actual	1.14	0.89	2.02	2.10	0.98		0.99	1.02	1.07	0.91	0.94		
108 of 123	Expected	1	1	1	1	2	1	1	1	2	1	1		
	Actual	1.17	0.93	1.00	1.09	1.97	1.00	1.01	1.03	2.22	0.93	0.92		

Figure 1: Amino Acid Analysis (continued)⁴

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Phe (F)	Pro (P)	Tyr (Y)	Val (V)
109 of 123	Expected		1	1		3	1	1	1	2	1	2		
	Actual		0.94	0.96		2.95	1.02	1.05	1.07	2.30	0.92	1.82		
110 of 123	Expected		1	1	1	2	1	1	1	1	1	2		
	Actual		0.92	0.97	1.07	2.03	1.01	0.97	1.02	1.13	0.94	1.90		
111 of 123	Expected		2	1	2	2	1		1	1	1	3		
	Actual		1.86	1.07	2.14	1.93	0.94		1.02	1.11	0.93	2.92		
112 of 123	Expected	1	1	1	2	1			1		1	5		
	Actual	1.06	0.87	1.06	2.11	0.99			1.03		0.93	5.05		
113 of 123	Expected	1	1		4				1		1	4		
	Actual	1.09	0.86		4.27				1.00		0.97	4.07		
114 of 123	Expected	1	1		4	1					2	4		
	Actual	1.06	0.89		4.26	1.01					1.90	4.09		
115 of 123	Expected	1	1		4	1					2	2		
	Actual	1.07	0.81		4.20	1.01					1.86	1.90		
116 of 123	Expected		1		4	1				1	2	1		
	Actual		0.92		4.26	0.99				1.09	1.88	1.00		
117 of 123	Expected				5	1		1		1	1	2		
	Actual				5.16	1.00		1.01		1.10	0.89	1.95		
118 of 123	Expected			1	4			1	1	2		2		
	Actual			1.04	3.98			0.98	0.98	2.10		1.89		
119 of 123	Expected	1		1	4			1	2	2		2		
	Actual	1.01		1.06	4.08			1.00	2.00	2.15		1.95		
120 of 123	Expected	1	1	1	2			1	3	1		2		
	Actual	1.10	0.86	1.09	2.08			1.03	3.12	1.12		2.06		
121 of 123	Expected	1	1	1	1	1			4	1	1	1		
	Actual	1.16	0.87	1.10	1.11	1.04			4.21	1.12	0.99	1.05		
122 of 123	Expected	1	1	2		1			3		1	2		
	Actual	1.20	0.81	2.09		1.01			3.06		0.93	1.98		
123 of 123	Expected		1	2	1	1			2		1	1		
	Actual		0.82	2.08	1.05	0.99			2.04		0.93	0.98		

⁴Results were not reported for the following amino acids due to partial or complete destruction during hydrolysis: cysteine (C), methionine (M), serine (S), threonine (T) and tryptophan (W).

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