

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

**Catalog No. HRP-12545**

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**Product Description:**

HRP-12545 is a series of 49 peptides spanning the entire human immunodeficiency virus type 1 (HIV-1) subtype B (consensus) Nef region. The HIV-1 consensus B Nef reference sequence was obtained from the 2004 consensus B sequence from the Los Alamos National Laboratory (LANL) HIV database. Most peptides are 15-mers, with 11 amino acid overlaps. Each peptide from the BEI Resources Catalog Number peptide array was pooled together and then distributed such that each vial contains 50 µg of each peptide, 2.45 mg total peptide.

**Lot: 70060904**

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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 <sup>1</sup>	Peptide Content <sup>2</sup>
1 of 49	8/23/2022	15	MGGKWSKRSVVGWPT	1675.83	100.0%	79.3%
2 of 49	8/23/2022	15	WSKRSVVGWPTVRER	1843.26	99.3%	77.5%
3 of 49	8/23/2022	15	SVVGWPTVRERMRA	1799.92	98.6%	71.8%
4 of 49	8/23/2022	15	WPTVRERMRAEPAA	1826.15	94.3%	73.3%
5 of 49	8/23/2022	15	RERMRAEPAADGVG	1670.83	100.0%	77.0%
6 of 49	8/23/2022	15	RRAEPAADGVGAVSR	1511.91	99.7%	72.9%
7 of 49	8/23/2022	15	PAADGVGAVSRDLEK	1484.95	100.0%	79.5%
8 of 49	8/23/2022	15	GVGAVSRDLEKHGAI	1509.09	81.9%	75.6%
9 of 49	8/23/2022	15	VSRDLEKHGAITSSN	1614.03	90.4%	80.5%
10 of 49	8/23/2022	15	LEKHGAITSSNTAAN	1513.94	100.0%	81.0%
11 of 49	8/23/2022	15	GAITSSNTAANNADC	1409.60	90.3%	92.4%
12 of 49	8/23/2022	15	SSNTAANNADCAWLE	1566.94	100.0%	75.1%
13 of 49	8/23/2022	15	AANNADCAWLEAQEE	1634.96	92.0%	73.2%
14 of 49	8/23/2022	15	ADCAWLEAQEEEEVG	1679.04	85.4%	83.1%
15 of 49	8/23/2022	15	WLEAQEEEEVGFPVR	1818.13	100.0%	89.8%
16 of 49	8/23/2022	15	QEEEEVGFPVRPQVP	1740.18	96.2%*	84.2%
17 of 49	8/23/2022	15	EVGFPVRPQVPLRPM	1722.23	100.0%	84.0%
18 of 49	8/23/2022	15	PVRPQVPLRPMTYKA	1753.24	100.0%	76.8%
19 of 49	8/23/2022	15	QVPLRPMTYKAAVDL	1702.01	94.4%	82.1%
20 of 49	8/23/2022	15	RPMTYKAAVDLSHFL	1748.92	84.6%	77.4%
21 of 49	8/23/2022	15	YKAAVDLSHFLKEKG	1706.17	100.0%	76.2%

Table 1: Peptide Analysis (continued)

Peptide	Date of Manufacturing	Length	Sequence	Molecular Weight (amu)	Purity by HPLC <sup>1</sup>	Peptide Content <sup>2</sup>
22 of 49	8/23/2022	15	VDSLHFLKEKGGLEG	1629.06	100.0%	75.7%
23 of 49	8/23/2022	15	HFLKEKGGLEGLIYS	1691.98	95.8%	78.4%
24 of 49	8/23/2022	15	EKGGLEGLIYSQKRQ	1706.16	100.0%	76.4%
25 of 49	8/23/2022	15	LEGLIYSQKRQDILD	1791.20	98.1%	89.6%
26 of 49	8/23/2022	15	IYSQKRQDILDWVY	1940.31	100.0%	83.7%
27 of 49	8/23/2022	15	KRQDILDWVYHTQG	1872.20	98.2%	80.0%
28 of 49	8/23/2022	15	ILDWVYHTQGYFPD	1867.21	100.0%	95.0%
29 of 49	8/23/2022	15	WVYHTQGYFPDWQNY	2004.09	100.0%	87.9%
30 of 49	8/23/2022	15	TQGYFPDWQNYTPGP	1771.12	98.5%	85.4%
31 of 49	8/23/2022	15	FPDWQNYTPGPGIRY	1810.84	96.2%	83.8%
32 of 49	8/23/2022	15	QNYTPGPGIRYPLTF	1724.12	94.8%*	82.9%
33 of 49	8/23/2022	15	PGPGIRYPLTFGWCF	1711.06	100.0%	89.8%
34 of 49	8/23/2022	15	IRYPLTFGWCFKLPV	1840.32	100.0%	87.7%
35 of 49	8/23/2022	15	LTFGWCFKLPVEPE	1765.31	100.0%	87.8%
36 of 49	8/23/2022	15	WCFKLPVEPEKVEE	1831.94	98.6%	83.3%
37 of 49	8/23/2022	15	LVPVEPEKVEEANEG	1639.06	100.0%	83.5%
38 of 49	8/23/2022	15	EPEKVEEANEGENNS	1674.79	100.0%	84.0%
39 of 49	8/23/2022	15	VEEANEGENNSLLHP	1651.73	100.0%	81.9%
40 of 49	8/23/2022	15	NEGENNSLLHPMSLH	1691.94	99.2%	76.0%
41 of 49	8/23/2022	15	NNSLLHPMSLHGMD	1680.96	96.7%	79.6%
42 of 49	8/23/2022	15	LHPMSLHGMDPERE	1764.04	100.0%	82.3%
43 of 49	8/23/2022	15	SLHGMDPEREVLEW	1812.76	100.0%	93.1%
44 of 49	8/23/2022	15	MDDPEREVLEWKFDS	1896.16	93.7%	86.6%
45 of 49	8/23/2022	15	EREVLEWKFDSRLAF	1925.28	96.4%	89.0%
46 of 49	8/23/2022	15	LEWKFDSRLAFHHMA	1888.29	90.3%	75.6%
47 of 49	8/23/2022	15	FDSRLAFHHMARELH	1867.17	100.0%	66.2%
48 of 49	8/23/2022	15	LAFHHMARELHPEYY	1914.21	95.8%	62.1%
49 of 49	8/23/2022	14	HMARELHPEYYKDC	1792.03	87.0%	73.8%

<sup>1</sup>Percent full-length peptide. HPLC peaks for both target and pyroglutanyl (pGlu) forms of Peptides 16 and 32 were counted for final purity.

<sup>2</sup>Remainder is salt and water

Figure 1: Amino Acid Analysis<sup>4</sup>

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 49	Expected		1.00			3.00				2.00		1.00		2.00
	Actual		0.96			2.83				2.14		1.01		2.03
2 of 49	Expected		3.00		1.00	1.00				1.00		1.00		3.00
	Actual		2.84		1.09	0.96				1.07		0.95		2.95
3 of 49	Expected	1.00	4.00		1.00	1.00						1.00		3.00
	Actual	0.99	3.66		1.11	0.98						0.99		3.04
4 of 49	Expected	3.00	4.00		2.00							2.00		1.00
	Actual	2.86	3.84		2.18							1.82		1.09
5 of 49	Expected	3.00	4.00	1.00	2.00	2.00						1.00		1.00
	Actual	3.09	3.71	1.06	2.13	1.91						0.96		1.00
6 of 49	Expected	4.00	3.00	1.00	1.00	2.00						1.00		2.00
	Actual	4.09	2.82	1.06	1.05	1.93						0.96		1.99

Figure 1: Amino Acid Analysis (continued)<sup>4</sup>

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)
7 of 49	Expected	3.00	1.00	2.00	1.00	2.00			1.00	1.00		1.00		2.00
	Actual	2.97	0.82	2.24	1.05	1.84			0.98	1.05		0.93		1.94
8 of 49	Expected	2.00	1.00	1.00	1.00	3.00	1.00	1.00	1.00	1.00				2.00
	Actual	2.03	0.88	1.15	1.08	2.85	0.96	0.98	0.99	1.03				1.95
9 of 49	Expected	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00				1.00
	Actual	1.03	0.97	2.17	1.04	0.96	0.95	0.98	0.98	1.04				0.97
10 of 49	Expected	3.00		2.00	1.00	1.00	1.00	1.00	1.00	1.00				
	Actual	2.99		2.11	1.04	0.96	0.94	0.98	0.98	1.05				
11 of 49	Expected	4.00		4.00		1.00		1.00						
	Actual	4.05		4.25		0.96		0.96						
12 of 49	Expected	4.00		4.00	1.00				1.00					
	Actual	3.96		4.06	1.02				0.97					
13 of 49	Expected	5.00		3.00	4.00				1.00					
	Actual	4.86		2.97	4.13				1.00					
14 of 49	Expected	3.00		1.00	6.00	1.00			1.00					1.00
	Actual	3.05		1.00	6.37	0.95			1.01					0.97
15 of 49	Expected	1.00	1.00		6.00	1.00			1.00		1.00	1.00		2.00
	Actual	1.02	0.96		6.29	1.00			0.97		0.96	1.01		2.04
16 of 49	Expected		1.00		6.00	1.00					1.00	3.00		3.00
	Actual		0.98		6.46	0.99					0.95	2.99		3.01
17 of 49	Expected		2.00		2.00	1.00			1.00		1.00	4.00		3.00
	Actual		1.92		2.17	0.99			1.02		0.96	3.94		3.01
18 of 49	Expected	1.00	2.00		1.00				1.00	1.00		4.00		2.00
	Actual	0.97	1.89		1.12				1.06	0.99		4.03		2.07
19 of 49	Expected	2.00	1.00	1.00	1.00				2.00	1.00		2.00		2.00
	Actual	2.12	0.90	1.14	1.03				2.02	1.10		1.99		2.02
20 of 49	Expected	2.00	1.00	1.00			1.00		2.00	1.00	1.00	1.00		1.00
	Actual	2.20	0.83	1.20			1.02		2.14	1.12	1.02	0.90		1.06
21 of 49	Expected	2.00		1.00	1.00	1.00	1.00		2.00	3.00	1.00			1.00
	Actual	2.02		1.08	1.05	0.96	0.95		1.99	3.11	0.94			0.98
22 of 49	Expected			1.00	2.00	3.00	1.00		3.00	2.00	1.00			1.00
	Actual			1.07	2.13	2.89	0.93		2.96	2.14	0.96			0.96
23 of 49	Expected				2.00	3.00	1.00	1.00	3.00	2.00	1.00			
	Actual				2.24	3.05	0.92	1.02	3.08	2.19	0.93			
24 of 49	Expected		1.00		4.00	3.00		1.00	2.00	2.00				
	Actual		0.97		4.41	2.97		1.01	2.06	2.19				
25 of 49	Expected		1.00	2.00	3.00	1.00		2.00	3.00	1.00				
	Actual		0.94	2.18	3.21	0.98		1.95	2.96	1.06				
26 of 49	Expected		1.00	2.00	2.00			2.00	2.00	1.00				1.00
	Actual		0.93	2.17	2.13			1.93	2.00	1.05				0.99
27 of 49	Expected		1.00	2.00	2.00	1.00	1.00	1.00	2.00	1.00				1.00
	Actual		0.95	2.16	2.10	0.94	0.96	0.98	2.00	1.06				0.98
28 of 49	Expected			2.00	1.00	1.00	1.00	1.00	2.00		1.00	1.00		1.00
	Actual			2.21	1.10	0.98	0.95	1.00	2.05		1.01	0.99		1.01
29 of 49	Expected			2.00	2.00	1.00	1.00				1.00	1.00		1.00
	Actual			2.16	2.18	1.00	0.96				1.03	1.01		1.00
30 of 49	Expected			2.00	2.00	2.00					1.00	3.00		
	Actual			2.29	2.28	2.08					1.05	3.14		
31 of 49	Expected		1.00	2.00	1.00	2.00		1.00			1.00	3.00		
	Actual		0.99	2.29	1.15	2.07		1.06			1.02	3.11		

**Figure 1: Amino Acid Analysis (continued)<sup>4</sup>**

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)
32 of 49	Expected		1.00	1.00	1.00	2.00		1.00	1.00		1.00	3.00		
	Actual		0.98	1.14	1.08	2.00		1.04	1.06		1.01	3.00		
33 of 49	Expected		1.00			3.00		1.00	1.00		2.00	3.00		
	Actual		0.98			2.99		1.07	1.09		2.00	3.04		
34 of 49	Expected		1.00			1.00		1.00	2.00	1.00	2.00	2.00		1.00
	Actual		0.95			0.99		1.03	2.11	1.09	1.97	2.04		1.04
35 of 49	Expected				2.00	1.00			2.00	1.00	2.00	2.00		2.00
	Actual				2.12	0.95			2.05	1.06	1.90	1.93		1.97
36 of 49	Expected				4.00				1.00	2.00	1.00	2.00		3.00
	Actual				3.88				1.05	2.00	1.00	2.00		2.93
37 of 49	Expected	1.00		1.00	5.00	1.00			1.00	1.00		2.00		3.00
	Actual	0.97		0.96	4.97	0.96			1.04	1.03		2.04		3.07
38 of 49	Expected	1.00		3.00	6.00	1.00				1.00		1.00		1.00
	Actual	1.00		2.87	5.87	1.01				1.03		1.00		1.02
39 of 49	Expected	1.00		3.00	4.00	1.00	1.00		2.00			1.00		1.00
	Actual	0.99		2.99	3.93	1.00	1.01		2.05			1.01		0.98
40 of 49	Expected			3.00	2.00	1.00	2.00		3.00			1.00		
	Actual			2.91	1.93	1.02	2.03		3.07			1.01		
41 of 49	Expected			4.00		1.00	2.00		3.00			1.00		
	Actual			4.36		0.98	1.89		3.01			0.98		
42 of 49	Expected		1.00	2.00	2.00	1.00	2.00		2.00			2.00		
	Actual		0.88	2.28	1.99	1.01	1.95		2.08			1.92		
43 of 49	Expected		1.00	2.00	3.00	1.00	1.00		2.00			1.00		1.00
	Actual		0.94	2.16	3.23	0.96	0.94		2.00			0.99		1.01
44 of 49	Expected		1.00	3.00	3.00				1.00	1.00	1.00	1.00		1.00
	Actual		0.94	3.05	3.22				1.02	1.04	0.93	0.97		1.01
45 of 49	Expected	1.00	2.00	1.00	3.00				2.00	1.00	2.00			1.00
	Actual	1.00	1.82	1.12	3.08				1.99	1.06	1.82			0.99
46 of 49	Expected	2.00	1.00	1.00	1.00		2.00		2.00	1.00	2.00			
	Actual	1.94	0.99	1.04	1.01		1.95		2.03	1.04	1.92			
47 of 49	Expected	2.00	2.00	1.00	1.00		3.00		2.00		2.00			
	Actual	2.02	1.96	1.02	1.00		2.95		2.03		1.97			
48 of 49	Expected	2.00	1.00		2.00		3.00		2.00		1.00	1.00		
	Actual	2.02	0.97		2.03		3.00		2.04		1.01	0.98		
49 of 49	Expected	1.00	1.00	1.00	2.00		2.00	0.00	1.00	1.00		1.00		
	Actual	0.99	0.95	1.02	2.01		1.98	0.00	1.03	1.02		0.99		

<sup>4</sup>Results 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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16 APR 2024

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