

**Peptide Arrays, Peptides for Expected Conserved MHC Class I Epitopes of Influenza Virus A Proteins**

**Catalog No. NR-2667**

This reagent is the tangible property of the U.S. Government.

**Product Description:** NR-2667 contains eight peptide arrays which consist of expected conserved Major Histocompatibility Complex (MHC) Class I epitopes of influenza A virus proteins M1 (NRC-248; 21 peptides), M2 (NRC-249; 5 peptides), NA (NRC-250; 3 peptides), NP (NRC-251; 19 peptides), NS2 (NRC-252; 2 peptides), PA (NRC-253; 28 peptides), PB1 (NRC-254; 51 peptides) and PB2 (NRC-255; 30 peptides).<sup>1</sup> Peptides are 9-mers.

**Lot: PB0623**

The following information applies to all peptides:

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

Peptide-specific information is shown in the two tables below.

Table 1							
Peptide	Date of Mfg.	Protein	Length	Sequence	Molecular Weight (amu)	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
<b>NRC-248: Influenza Virus A M1 Peptides</b>							
1 of 21	05/09/2006	M1	9	29-EDVFAGKNT-37	980.07	95.70%	79.46%
2 of 21	05/09/2006	M1	9	31-VFAGKNTDL-39	964.13	97.78%	79.72%
3 of 21	06/16/2006	M1	9	37-TDLEALMEW-45	1106.80	95.06%	84.92%
4 of 21	06/01/2006	M1	9	49-RPILSPLTK-57	1024.27	96.87%	60.60%
5 of 21	06/08/2006	M1	9	51-ILSPLTKGI-59	941.20	98.84%	68.68%
6 of 21	06/06/2006	M1	9	56-TKGILGFVF-64	981.20	98.93%	75.31%
7 of 21	06/08/2006	M1	9	58-GILGFVFTL-66	966.07	96.30%	84.70%
8 of 21	06/12/2006	M1	9	60-LGFVFTLTV-68	996.07	96.74%	90.59%
9 of 21	06/01/2006	M1	9	66-LTVPSEGL-74	971.27	98.35%	67.26%
10 of 21	06/12/2006	M1	9	68-VPSEGLQR-76	1041.27	98.65%	67.95%
11 of 21	06/08/2006	M1	9	71-ERGLQRRRF-79	1217.40	98.71%	63.55%
12 of 21	06/09/2006	M1	9	75-QRRRFVQNA-83	1174.33	96.05%	68.56%
13 of 21	06/12/2006	M1	9	76-RRRFVQNAL-84	1159.33	96.85%	70.50%
14 of 21	06/16/2006	M1	9	122-GALASCMGL-130	822.00	95.10%	78.10%
15 of 21	06/20/2006	M1	9	123-ALASCMGLI-131	977.93	90.28%	74.04%

Table 1							
Peptide	Date of Mfg.	Protein	Length	Sequence	Molecular Weight (amu)	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
<b>NRC-248: Influenza Virus A M1 Peptides</b>							
16 of 21	06/20/2006	M1	9	124-LASCMGLIY-132	969.87	96.88%	73.71%
17 of 21	05/09/2006	M1	9	126-SCMGLIYNR-134	1056.20	95.80%	82.51%
18 of 21	05/26/2006	M1	9	177-NRMVLASTT-185	992.27	95.14%	70.72%
19 of 21	06/01/2006	M1	9	179-MVLASTTAK-187	921.13	99.38%	73.37%
20 of 21	06/06/2006	M1	9	180-VLASTTAKA-188	861.00	98.28%	71.40%
21 of 21	06/15/2006	M1	9	181-LASTTAKAM-189	893.07	98.45%	72.90%
<b>NRC-249: Influenza Virus A M2 Peptides</b>							
1 of 5	06/06/2006	M2	9	30-ASIIGILHL-38	936.20	96.41%	77.21%
2 of 5	06/07/2006	M2	9	31-SIIGILHLI-39	978.07	98.07%	71.72%
3 of 5	06/16/2006	M2	9	34-GILHLILWI-42	1077.27	95.29%	69.00%
4 of 5	06/14/2006	M2	9	40-LWILDRLFF-48	1222.40	95.02%	74.50%
5 of 5	05/24/2006	M2	9	41-WILDRLFFK-49	1237.47	98.51%	69.88%
<b>NRC-250: Influenza Virus A NA Peptides</b>							
1 of 3	06/07/2006	NA	9	100-FSKDNSIRL-108	1079.27	97.12%	69.64%
2 of 3	06/09/2006	NA	9	106-IRLSAGGDI-114	901.20	95.23%	71.81%
3 of 3	05/17/2006	NA	9	107-RLSAGGDIW-115	974.27	97.05%	85.91%
<b>NRC-251: Influenza Virus A NP Peptides</b>							
1 of 19	05/18/2006	NP	9	88-DPKKTGGPI-96	912.07	98.11%	54.24%
2 of 19	05/17/2006	NP	9	89-PKKTGGPIY-97	960.27	98.03%	66.77%
3 of 19	05/24/2006	NP	9	147-TYQRTRALV-155	1107.40	97.12%	74.95%
4 of 19	05/17/2006	NP	9	149-QRTRALVRT-157	1100.40	95.08%	72.34%
5 of 19	05/17/2006	NP	9	158-GMDPRMCSL-166	1009.07	95.16%	71.11%
6 of 19	05/17/2006	NP	9	164-CSLMQGSTL-172	938.93	95.64%	89.39%
7 of 19	05/17/2006	NP	9	166-LMQGSTLPR-174	1002.27	95.66%	78.64%
8 of 19	06/14/2006	NP	9	218-AYERMCNIL-226	1112.20	95.22%	80.16%
9 of 19	06/12/2006	NP	9	225-ILKGKFQTA-233	1005.33	96.76%	65.46%
10 of 19	06/12/2006	NP	9	226-LKGKFQTA-234	963.20	95.36%	61.42%
11 of 19	06/08/2006	NP	9	245-SRNPNGNAEI-253	957.07	99.32%	75.88%
12 of 19	05/17/2006	NP	9	250-NAEIEDLIF-258	1062.87	95.74%	83.01%
13 of 19	05/17/2006	NP	9	256-LIFLARSAL-264	1003.33	96.44%	90.28%
14 of 19	06/14/2006	NP	9	257-IFLARSALI-265	1003.33	96.98%	78.61%
15 of 19	05/17/2006	NP	9	258-FLARSALIL-266	1003.40	97.67%	78.08%
16 of 19	05/17/2006	NP	9	296-YSLVGIDPF-304	1009.93	98.08%	90.40%
17 of 19	06/08/2006	NP	9	462-GVFELSDEK-470	1023.13	99.02%	77.16%
18 of 19	05/24/2006	NP	9	463-VFELSDEKA-471	1037.13	98.35%	74.12%
19 of 19	05/17/2006	NP	9	464-FELSDEKAT-472	1039.07	97.10%	78.51%
<b>NRC-252: Influenza Virus A NS2 Peptides</b>							
1 of 2	05/17/2006	NS2	9	4-NTVSSFQDI-12	1010.00	98.30%	85.11%
2 of 2	05/17/2006	NS2	9	72-KFEEIRWLI-80	1233.47	98.48%	78.59%



Table 1							
Peptide	Date of Mfg.	Protein	Length	Sequence	Molecular Weight (amu)	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
<b>NRC-253: Influenza Virus A PA Peptides</b>							
1 of 28	05/17/2006	PA	9	71-LLKHRFEII-79	1168.47	99.41%	72.21%
2 of 28	05/18/2006	PA	9	74-HRFEIIEGR-82	1156.27	98.66%	71.48%
3 of 28	05/18/2006	PA	9	130-YYLEKANKI-138	1141.13	95.10%	74.21%
4 of 28	05/18/2006	PA	9	131-YLEKANKIK-139	1106.27	99.19%	70.76%
5 of 28	06/06/2006	PA	9	162-TLDEESRAR-170	1076.07	99.03%	71.20%
6 of 28	05/18/2006	PA	9	163-LDEESRARI-171	1088.20	97.71%	78.61%
7 of 28	05/26/2006	PA	9	164-DEESRARIK-172	1103.18	97.03%	63.04%
8 of 28	05/19/2006	PA	9	166-ESRARIKTR-174	1116.33	97.36%	64.71%
9 of 28	05/24/2006	PA	9	167-SRARIKTRL-175	1100.33	98.62%	70.02%
10 of 28	05/19/2006	PA	9	245-KLSQMSKEV-253	1049.27	97.36%	72.33%
11 of 28	05/19/2006	PA	9	294-DPSHEGEGI-302	940.07	98.61%	69.21%
12 of 28	05/24/2006	PA	9	296-SHEGEGEPL-304	937.93	99.76%	77.55%
13 of 28	06/07/2006	PA	9	483-IPMISKCRT-491	1048.20	96.05%	66.22%
14 of 28	05/24/2006	PA	9	484-PMISKCR TK-492	1063.33	96.74%	67.31%
15 of 28	06/14/2006	PA	9	507-GRSHLRNDT-515	1055.13	99.57%	60.13%
16 of 28	05/24/2006	PA	9	510-HLRNDTDVV-518	1068.13	95.89%	74.84%
17 of 28	05/24/2006	PA	9	632-SIGKVCRTL-640	976.27	95.82%	68.07%
18 of 28	05/25/2006	PA	9	635-KVCRTLLAK-643	1031.33	96.43%	71.14%
19 of 28	05/25/2006	PA	9	637-CRTLLAKSV-645	990.33	96.28%	73.89%
20 of 28	05/25/2006	PA	9	641-LAKSVFNSL-649	978.20	98.21%	77.49%
21 of 28	05/25/2006	PA	9	642-AKSVFNSLY-650	1028.07	98.71%	73.65%
22 of 28	05/26/2006	PA	9	652-SPQLEGFSA-660	935.13	98.47%	80.26%
23 of 28	05/25/2006	PA	9	656-EGFSAESRK-664	1010.13	98.86%	57.20%
24 of 28	05/25/2006	PA	9	657-GFSAESRKL-665	994.20	97.88%	67.65%
25 of 28	05/25/2006	PA	9	658-FSAESRKLL-666	1050.27	98.15%	69.19%
26 of 28	05/25/2006	PA	9	659-SAESRKL-667	1016.20	97.95%	66.26%
27 of 28	05/25/2006	PA	9	691-EECLINDPW-699	1117.87	95.50%	86.52%
28 of 28	05/25/2006	PA	9	694-LINDPWVLL-702	1082.00	98.03%	77.63%
<b>NRC-254: Influenza Virus A PB1 Peptides</b>							
1 of 51	06/14/2006	PB1	9	4-NPTLLFLKV-12	1044.20	97.44%	73.71%
2 of 51	06/07/2006	PB1	9	16-NAISTTFPY-24	1012.87	99.00%	76.10%
3 of 51	05/23/2006	PB1	9	22-FPYTGDPY-30	1055.93	99.55%	77.08%
4 of 51	05/23/2006	PB1	9	30-YSHGTGTGY-38	942.00	98.77%	69.15%
5 of 51	06/20/2006	PB1	9	77-NEPSGYAQT-85	965.93	98.66%	73.98%
6 of 51	05/23/2006	PB1	9	81-GYAQTDCVL-89	968.93	95.58%	81.82%
7 of 51	05/23/2006	PB1	9	83-AQTDVCVLEA-91	949.07	95.84%	75.70%
8 of 51	05/23/2006	PB1	9	123-TQGRQTYDW-131	1154.20	95.38%	72.54%
9 of 51	05/23/2006	PB1	9	127-QTYDWT LNR-135	1196.27	95.39%	62.65%
10 of 51	05/23/2006	PB1	9	221-ALT LNTMTK-229	992.20	96.89%	74.80%
11 of 51	05/23/2006	PB1	9	228-TKDAERGKL-236	1017.20	99.27%	67.44%
12 of 51	05/23/2006	PB1	9	230-DAERGKLKR-238	1072.33	98.58%	51.56%
13 of 51	05/23/2006	PB1	9	233-RGKLKRRAI-241	1097.47	97.49%	56.97%
14 of 51	05/23/2006	PB1	9	235-KLKRRAIAT-243	1056.40	97.11%	51.87%
15 of 51	05/23/2006	PB1	9	238-RRAIATPGM-246	972.20	97.90%	30.37%

Table 1							
Peptide	Date of Mfg.	Protein	Length	Sequence	Molecular Weight (amu)	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
<b>NRC-254: Influenza Virus A PB1 Peptides</b>							
16 of 51	06/14/2006	PB1	9	240-AIATPGMQI-248	901.00	95.15%	73.20%
17 of 51	06/06/2006	PB1	9	243-TPGMQIRGF-251	1006.13	97.45%	81.97%
18 of 51	05/23/2006	PB1	9	271-LPVGGGNEKK-279	941.13	98.27%	67.86%
19 of 51	05/26/2006	PB1	9	274-GGNEKKAKL-282	944.13	98.88%	61.75%
20 of 51	05/26/2006	PB1	9	275-GNEKKAKLA-283	958.27	97.89%	52.91%
21 of 51	05/26/2006	PB1	9	277-EKKAKLANV-285	1000.20	98.96%	66.69%
22 of 51	05/26/2006	PB1	9	280-AKLANVVRK-288	998.27	97.91%	49.35%
23 of 51	05/26/2006	PB1	9	281-KLANVVRKM-289	1058.33	98.31%	67.27%
24 of 51	05/30/2006	PB1	9	340-APIMFSNKM-348	1038.13	95.63%	71.82%
25 of 51	06/09/2006	PB1	9	342-IMFSNKMAR-350	1097.27	98.51%	70.61%
26 of 51	05/30/2006	PB1	9	343-MFSNKMARL-351	1097.27	96.85%	70.25%
27 of 51	05/30/2006	PB1	9	347-KMARLGKGY-355	1023.27	98.10%	52.65%
28 of 51	05/30/2006	PB1	9	349-ARLGKGYMF-357	1042.27	97.26%	69.55%
29 of 51	06/16/2006	PB1	9	403-LSPGMMMGM-411	953.87	96.24%	71.48%
30 of 51	06/19/2006	PB1	9	404-SPGMMMGMF-412	987.73	96.42%	77.33%
31 of 51	06/14/2006	PB1	9	407-MMMGMFNML-415	1104.80	96.09%	79.72%
32 of 51	06/14/2006	PB1	9	410-GMFNMLSTV-418	998.80	98.62%	77.56%
33 of 51	06/14/2006	PB1	9	411-MFNMLSTVL-419	1054.87	97.15%	82.34%
34 of 51	06/21/2006	PB1	9	413-NMLSTVLGV-421	932.87	95.74%	76.47%
35 of 51	06/06/2006	PB1	9	439-DGLQSSDDF-447	982.87	99.14%	83.75%
36 of 51	06/06/2006	PB1	9	441-LQSSDDFAL-449	994.87	96.24%	80.44%
37 of 51	06/15/2006	PB1	9	443-SSDDFALIV-451	965.67	95.89%	74.78%
38 of 51	06/06/2006	PB1	9	475-INMSKKKSY-483	1098.13	97.49%	59.01%
39 of 51	06/15/2006	PB1	9	487-TGTFEFTSF-495	1035.93	99.56%	74.56%
40 of 51	06/08/2006	PB1	9	489-TFEFTSFFY-497	1187.87	96.82%	85.20%
41 of 51	06/07/2006	PB1	9	491-EFTSFFYRY-499	1259.20	98.88%	79.10%
42 of 51	06/09/2006	PB1	9	497-YRYGFVANF-505	1136.27	99.06%	75.81%
43 of 51	06/20/2006	PB1	9	501-FVANFSMEL-509	1056.93	96.68%	77.97%
44 of 51	06/09/2006	PB1	9	504-NFSMELPSF-512	1070.80	95.72%	85.46%
45 of 51	06/06/2006	PB1	9	598-LYNIRNLHI-606	1155.33	97.86%	70.89%
46 of 51	06/07/2006	PB1	9	658-DAVATTHSW-666	987.00	95.80%	78.95%
47 of 51	06/15/2006	PB1	9	669-KRNRSILNT-677	1101.20	98.93%	58.59%
48 of 51	06/07/2006	PB1	9	697-EKFFPSSSY-705	1091.00	98.95%	78.37%
49 of 51	05/30/2006	PB1	9	698-KFFPSSSYR-706	1118.27	99.30%	71.57%
50 of 51	05/30/2006	PB1	9	699-FFPSSSYRR-707	1146.27	98.21%	75.58%
51 of 51	06/12/2006	PB1	9	716-EAMVSRARI-724	1032.33	95.64%	69.31%
<b>NRC-255: Influenza Virus A PB2 Peptides</b>							
1 of 30	06/15/2006	PB2	9	23-TTVDHMAII-31	1000.00	98.51%	76.70%
2 of 30	05/30/2006	PB2	9	24-TVDHMAIIK-32	1027.13	97.20%	70.26%
3 of 30	05/30/2006	PB2	9	26-DHMAIIKKY-34	1118.27	96.90%	68.98%
4 of 30	06/01/2006	PB2	9	30-IIKKYTSGR-38	1065.33	99.55%	60.72%
5 of 30	06/06/2006	PB2	9	33-KYTSGRQEK-41	1096.27	97.22%	61.30%
6 of 30	06/21/2006	PB2	9	45-LRMKWMAM-53	1197.33	96.19%	69.69%
7 of 30	06/06/2006	PB2	9	47-MKWMAMKY-55	1219.00	95.09%	56.81%
8 of 30	06/12/2006	PB2	9	49-WMMAMKYPI-57	1170.00	90.33%	79.50%
9 of 30	06/06/2006	PB2	9	158-EAQDVIMEV-166	1032.80	97.52%	69.64%
10 of 30	06/21/2006	PB2	9	160-QDVIMEVVF-168	1078.80	90.02%	79.59%

Table 1							
Peptide	Date of Mfg.	Protein	Length	Sequence	Molecular Weight (amu)	Purity by HPLC <sup>a</sup>	Peptide Content <sup>b</sup>
<b>NRC-255: Influenza Virus A PB2 Peptides</b>							
11 of 30	06/06/2006	PB2	9	204-AYMLERELV-212	1123.33	96.81%	77.84%
12 of 30	06/06/2006	PB2	9	205-YMLERELVR-213	1208.40	97.07%	71.97%
13 of 30	06/07/2006	PB2	9	206-MLERELVRK-214	1173.27	97.53%	69.16%
14 of 30	06/07/2006	PB2	9	208-ERELVRKTR-216	1186.40	97.37%	61.26%
15 of 30	06/14/2006	PB2	9	209-RELVKTRF-217	1204.40	99.46%	66.01%
16 of 30	06/12/2006	PB2	9	210-ELVRKTRFL-218	1161.47	97.72%	70.46%
17 of 30	06/08/2006	PB2	9	212-VRKTRFLPV-220	1115.40	98.44%	68.15%
18 of 30	06/14/2006	PB2	9	232-LHLTQGTWC-240	1057.93	97.36%	78.03%
19 of 30	06/08/2006	PB2	9	279-SLLEMCHST-287	1020.07	97.71%	69.14%
20 of 30	06/12/2006	PB2	9	320-SSSFSFGGF-328	922.00	97.07%	76.80%
21 of 30	06/14/2006	PB2	9	322-SFSFGGFTF-330	995.87	98.80%	82.66%
22 of 30	06/08/2006	PB2	9	412-KAVRGDLNF-420	1019.20	98.26%	75.03%
23 of 30	06/08/2006	PB2	9	420-FVNRANQRL-428	1117.27	99.26%	68.33%
24 of 30	06/08/2006	PB2	9	423-RANQRLNPM-431	1099.27	97.94%	71.45%
25 of 30	06/15/2006	PB2	9	426-QRLNPMHQL-434	1136.27	96.85%	76.61%
26 of 30	06/09/2006	PB2	9	427-RLNPMHQLL-435	1121.33	98.37%	69.73%
27 of 30	06/09/2006	PB2	9	686-VESAVLRGF-694	977.20	98.86%	81.93%
28 of 30	06/09/2006	PB2	9	742-SILTDSQTA-750	935.00	95.55%	73.21%
29 of 30	06/09/2006	PB2	9	743-ILTDSQTAT-751	949.07	97.55%	67.06%
30 of 30	06/09/2006	PB2	9	744-LTDSQTATK-752	964.13	98.68%	72.28%

<sup>a</sup>% full-length  
<sup>b</sup>Remainder 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)
<b>NRC-248: Influenza Virus A M1 Peptides</b>																			
1 of 21	Expected	1.00		2.00		1.00	1.00				1.00		1.00			1.00			1.00
	Actual	0.94		1.94		1.00	1.02				1.02		1.02			1.06			1.02
2 of 21	Expected	1.00		2.00			1.00			1.00	1.00		1.00			1.00			1.00
	Actual	0.96		1.92			1.01			1.03	1.02		1.02			1.04			1.00
3 of 21	Expected	1.00		1.00		2.00				2.00		1.00				1.00	1.00		
	Actual	1.09		1.01		1.98				1.96		0.90				1.08	0.00 <sup>a</sup>		
4 of 21	Expected		1.00						1.00	2.00	1.00			2.00	1.00	1.00			
	Actual		0.90						0.99	2.26	1.01			2.02	1.09	1.01			
5 of 21	Expected						1.00		2.00	2.00	1.00			1.00	1.00	1.00			
	Actual						1.07		2.01	2.12	0.95			1.01	1.03	1.02			



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)
<b>NRC-248: Influenza Virus A M1 Peptides</b>																			
6 of 21	Expected						2.00		1.00	1.00	1.00		2.00			1.00			1.00
	Actual						2.14		0.99	1.03	0.91		2.04			0.97			1.05
7 of 21	Expected						2.00		1.00	2.00			2.00			1.00			1.00
	Actual						2.02		0.91	2.10			2.02			1.02			1.05
8 of 21	Expected						1.00			2.00			2.00			2.00			2.00
	Actual						1.04			1.96			1.96			2.07			2.04
9 of 21	Expected		1.00			1.00	1.00			2.00				1.00	1.00	1.00			1.00
	Actual		0.86			1.04	1.09			2.14				1.03	1.05	0.95			1.04
10 of 21	Expected		2.00			2.00	1.00			1.00				1.00	1.00				1.00
	Actual		2.06			1.93	1.00			1.04				0.94	0.87				1.03
11 of 21	Expected		4.00			2.00	1.00			1.00			1.00						
	Actual		3.73			1.94	1.02			1.02			1.06						
12 of 21	Expected	1.00	3.00	1.00		2.00							1.00						1.00
	Actual	1.07	2.92	0.98		1.96							1.00						1.00
13 of 21	Expected	1.00	3.00	1.00		1.00				1.00			1.00						1.00
	Actual	1.03	3.03	0.98		0.98				1.01			1.00						0.98
14 of 21	Expected	2.00			1.00		2.00			2.00		1.00			1.00				
	Actual	2.01			0.00 <sup>b</sup>		1.99			2.21		1.09		0.41 <sup>b</sup>	0.61				
15 of 21	Expected	2.00			1.00		1.00		1.00	2.00		1.00			1.00				
	Actual	2.13			0.00 <sup>b</sup>		1.12		0.95	1.97		0.99		0.68 <sup>b</sup>	0.62				
16 of 21	Expected	1.00			1.00		1.00		1.00	2.00		1.00			1.00				1.00
	Actual	1.16			0.00 <sup>b</sup>		1.14		0.96	2.02		1.03		0.59 <sup>b</sup>	0.67				0.99
17 of 21	Expected		1.00	1.00	1.00		1.00		1.00	1.00		1.00			1.00				1.00
	Actual		1.02	0.98	0.00 <sup>b</sup>		1.01		0.97	1.04		1.12		0.61 <sup>b</sup>	0.62				0.98
18 of 21	Expected	1.00	1.00	1.00						1.00		1.00			1.00	2.00			1.00
	Actual	1.10	0.88	1.07						1.08		0.93			1.02	2.11			1.01
19 of 21	Expected	2.00								1.00	1.00	1.00			1.00	2.00			1.00
	Actual	2.17								1.06	0.93	1.01			1.02	2.08			1.00
20 of 21	Expected	3.00								1.00	1.00				1.00	2.00			1.00
	Actual	3.30								1.06	0.94				1.01	2.10			0.99
21 of 21	Expected	3.00								1.00	1.00	1.00			1.00	2.00			
	Actual	2.79								1.06	1.10	1.05			1.02	1.95			
<b>NRC-249: Influenza Virus A M2 Peptides</b>																			
1 of 5	Expected	1.00					1.00	1.00	3.00	2.00					1.00				
	Actual	1.10					1.07	0.92	2.95 <sup>c</sup>	2.02					1.02				
2 of 5	Expected						1.00	1.00	4.00	2.00					1.00				
	Actual						1.12	0.95	3.78 <sup>c</sup>	2.04					1.07				
3 of 5	Expected						1.00	1.00	3.00	3.00								1.00	
	Actual						1.12	1.10	2.60	2.74								0.00 <sup>a</sup>	
4 of 5	Expected		1.00	1.00					1.00	3.00			2.00						1.00
	Actual		1.07	0.96					0.95	3.01			2.05						0.00 <sup>a</sup>
5 of 5	Expected		1.00	1.00					1.00	2.00	1.00		2.00						1.00
	Actual		1.03	1.01					0.92	2.06	0.99		2.05						0.00 <sup>a</sup>
<b>NRC-250: Influenza Virus A NA Peptides</b>																			
1 of 3	Expected		1.00	2.00					1.00	1.00	1.00		1.00		2.00				
	Actual		1.04	2.05					0.95	1.06	0.99		1.03		1.99				
2 of 3	Expected	1.00	1.00	1.00			2.00		2.00	1.00					1.00				
	Actual	1.03	0.98	1.04			2.03		1.95	1.04					1.01				
3 of 3	Expected	1.00	1.00	1.00			2.00		1.00	1.00					1.00				1.00
	Actual	0.92	1.03	1.02			2.02		1.00	1.06					1.06				0.00 <sup>a</sup>

**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)
<b>NRC-251: Influenza Virus A NP Peptides</b>																			
1 of 19	Expected			1.00			2.00		1.00		2.00			2.00		1.00			
	Actual			1.02			2.10		0.98		2.04			1.90		1.02			
2 of 19	Expected						2.00		1.00		2.00			2.00		1.00		1.00	
	Actual						2.03		1.00		2.05			1.86		1.07		1.01	
3 of 19	Expected	1.00	2.00			1.00				1.00						2.00		1.00	1.00
	Actual	1.04	1.99			0.98				1.03						1.92		0.99	1.05
4 of 19	Expected	1.00	3.00			1.00				1.00						2.00			1.00
	Actual	1.02	2.90			0.81				1.03						2.04			1.02
5 of 19	Expected		1.00	1.00	1.00		1.00			1.00		2.00		1.00	1.00				
	Actual		1.02	0.99	0.00 <sup>b</sup>		0.99			0.99		2.03		1.65 <sup>b</sup>	0.96				
6 of 19	Expected				1.00	1.00	1.00			2.00		1.00			2.00	1.00			
	Actual				0.00 <sup>b</sup>	0.98	1.03			2.05		1.12		0.65 <sup>b</sup>	1.96	1.00			
7 of 19	Expected		1.00			1.00	1.00			2.00		1.00		1.00	1.00	1.00			
	Actual		1.04			1.01	1.03			2.04		1.13		0.89	1.00	1.02			
8 of 19	Expected	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00							1.00
	Actual	1.01	1.06	0.94	0.00 <sup>b</sup>	0.96			0.97	1.01		1.03		0.50 <sup>b</sup>					1.01
9 of 19	Expected	1.00				1.00	1.00		1.00	1.00	2.00		1.00			1.00			
	Actual	0.97				0.98	0.95		0.97	1.02	2.12		1.07			1.03			
10 of 19	Expected	2.00				1.00	1.00			1.00	2.00		1.00			1.00			
	Actual	1.88				0.98	0.95			1.01	2.14		1.06			1.05			
11 of 19	Expected	1.00	1.00	2.00		1.00	1.00		1.00					1.00	1.00				
	Actual	1.01	1.01	1.98		0.98	1.01		0.99					1.01	0.87				
12 of 19	Expected	1.00		2.00		2.00			2.00	1.00			1.00						
	Actual	0.99		1.94		2.01			1.91	1.00			1.08						
13 of 19	Expected	2.00	1.00						1.00	3.00			1.00		1.00				
	Actual	2.05	1.05						0.94	3.15			1.04		0.99				
14 of 19	Expected	2.00	1.00						2.00	2.00			1.00		1.00				
	Actual	1.92	1.12						1.93	2.10			1.01		0.99				
15 of 19	Expected	2.00	1.00						1.00	3.00			1.00		1.00				
	Actual	2.05	1.06						0.95	3.13			1.04		0.99				
16 of 19	Expected			1.00			1.00		1.00	1.00			1.00	1.00	1.00			1.00	1.00
	Actual			1.01			1.02		0.96	1.00			0.99	1.13	0.97			0.97	1.03
17 of 19	Expected			1.00		2.00	1.00			1.00	1.00		1.00		1.00				1.00
	Actual			1.01		2.04	1.03			1.02	1.00		1.02		0.99				1.01
18 of 19	Expected	1.00		1.00		2.00				1.00	1.00		1.00		1.00				1.00
	Actual	1.04		1.01		2.04				1.02	1.00		1.03		0.95				1.02
19 of 19	Expected	1.00		1.00		2.00				1.00	1.00		1.00		1.00	1.00			
	Actual	1.04		1.02		2.06				1.03	0.99		1.07		0.97	0.98			
<b>NRC-252: Influenza A NS2 Peptides</b>																			
1 of 2	Expected			2.00		1.00			1.00				1.00		2.00	1.00			1.00
	Actual			2.07		1.02			1.02				1.08		1.96	0.94			1.06
2 of 2	Expected		1.00			2.00			2.00	1.00	1.00		1.00					1.00	
	Actual		0.99			1.99			1.91	1.01	1.01		1.03					0.00 <sup>a</sup>	
<b>NRC-253: Influenza Virus A PA Peptides</b>																			
1 of 28	Expected		1.00			1.00		1.00	2.00	2.00	1.00		1.00						
	Actual		1.03			1.02		1.01	1.77 <sup>c</sup>	2.05	0.99		1.04						
2 of 28	Expected		2.00			2.00	1.00	1.00	2.00				1.00						
	Actual		2.08			2.04	1.02	1.01	1.76 <sup>c</sup>				1.03						
3 of 28	Expected	1.00		1.00		1.00			1.00	1.00	2.00								2.00
	Actual	1.00		1.00		1.01			0.95	1.01	1.98								2.07



**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)
<b>NRC-253: Influenza Virus A PA Peptides</b>																			
4 of 28	Expected	1.00		1.00		1.00			1.00	1.00	3.00							1.00	
	Actual	1.02		0.99		1.01			0.95	1.04	2.91							1.01	
5 of 28	Expected	1.00	2.00	1.00		2.00				1.00					1.00	1.00			
	Actual	1.03	2.12	1.04		2.02				1.05					0.95	0.99			
6 of 28	Expected	1.00	2.00	1.00		2.00			1.00	1.00					1.00				
	Actual	1.04	2.05	1.00		1.99			0.98	1.05					1.00				
7 of 28	Expected	1.00	2.00	1.00		2.00			1.00		1.00				1.00				
	Actual	1.02	2.09	1.02		2.07			0.97		0.98				1.01				
8 of 28	Expected	1.00	3.00			1.00			1.00		1.00				1.00	1.00			
	Actual	1.04	3.03			1.01			1.00		0.99				1.05	1.05			
9 of 28	Expected	1.00	3.00						1.00	1.00	1.00				1.00	1.00			
	Actual	1.03	2.99						0.95	1.06	0.99				1.08	1.04			
10 of 28	Expected					2.00				1.00	2.00	1.00			2.00				1.00
	Actual					1.95				1.02	2.02	1.08			1.89				1.05
11 of 28	Expected			1.00		2.00	2.00	1.00	1.00					1.00	1.00				
	Actual			1.02		1.93	2.01	1.01	0.96					1.04	0.88				
12 of 28	Expected					2.00	2.00	1.00	1.00	1.00				1.00	1.00				
	Actual					1.98	2.02	1.03	1.02	1.06				0.97	1.01				
13 of 28	Expected		1.00		1.00				2.00		1.00	1.00		1.00	1.00	1.00			
	Actual		1.06		0.00 <sup>b</sup>				2.05		1.00	0.92		1.78 <sup>b</sup>	1.03	1.03			
14 of 28	Expected		1.00		1.00				1.00		2.00	1.00		1.00	1.00	1.00			
	Actual		1.01		0.00 <sup>b</sup>				1.02		1.99	1.09		1.49 <sup>b</sup>	1.03	1.00			
15 of 28	Expected		2.00	2.00			1.00	1.00		1.00					1.00	1.00			
	Actual		2.21	1.95			0.96	1.10		1.07					0.96	0.96			
16 of 28	Expected		1.00	3.00				1.00		1.00						1.00			2.00
	Actual		1.02	2.88				1.04		1.07						1.11			1.70 <sup>c</sup>
17 of 28	Expected		1.00		1.00		1.00		1.00	1.00	1.00				1.00	1.00			1.00
	Actual		0.96		0.00 <sup>b</sup>		0.99		1.01	1.08	0.97			0.40 <sup>b</sup>	1.08	1.03			1.03
18 of 28	Expected	1.00	1.00		1.00					2.00	2.00					1.00			1.00
	Actual	1.01	1.01		0.00 <sup>b</sup>					1.98	1.96			0.58 <sup>b</sup>		1.05			1.02
19 of 28	Expected	1.00	1.00		1.00					2.00	1.00				1.00	1.00			1.00
	Actual	1.00	1.01		0.00 <sup>b</sup>					2.01	1.01			0.62 <sup>b</sup>	1.06	1.00			1.05
20 of 28	Expected	1.00		1.00						2.00	1.00		1.00		2.00				1.00
	Actual	1.02		0.99						2.01	1.02		1.03		1.95				1.04
21 of 28	Expected	1.00		1.00						1.00	1.00		1.00		2.00				1.00
	Actual	1.01		1.02						1.01	1.01		1.00		2.02				1.03
22 of 28	Expected	1.00				2.00	1.00			1.00			1.00	1.00	2.00				
	Actual	0.99				1.98	0.99			1.00			1.01	1.13	1.95				
23 of 28	Expected	1.00	1.00			2.00	1.00				1.00		1.00		2.00				
	Actual	1.03	1.04			1.98	1.04				0.99		1.02		1.94				
24 of 28	Expected	1.00	1.00			1.00	1.00			1.00	1.00		1.00		2.00				
	Actual	1.01	1.04			1.00	1.02			1.01	1.01		1.33		1.97				0.02
25 of 28	Expected	1.00	1.00			1.00				2.00	1.00		1.00		2.00				
	Actual	1.00	1.04			1.00				2.05	1.00		1.02		1.98				
26 of 28	Expected	1.00	1.00			1.00				3.00	1.00				2.00				
	Actual	1.00	1.04			1.03				3.07	1.00				2.01				
27 of 28	Expected			2.00	1.00	2.00			1.00	1.00				1.00				1.00	
	Actual			1.99	0.00 <sup>b</sup>	2.00			0.93	1.01				1.80				0.00 <sup>a</sup>	
28 of 28	Expected			2.00					1.00	3.00				1.00				1.00	1.00
	Actual			1.99					0.92	3.07				1.03				0.00 <sup>a</sup>	1.04

<sup>a</sup>Trp was completely destroyed during hydrolysis

<sup>b</sup>Cys was partially destroyed during hydrolysis and Cys degradation products co-elute with Pro

<sup>c</sup>Val-Ile, Val-Val, Ile-Ile and/or Ile-Val bonds were only partially destroyed during hydrolysis

**Table 3 - 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)
<b>NRC-254: Influenza Virus A PB1 Peptides</b>																			
1 of 51	Expected			1.00						3.00	1.00		1.00	1.00		1.00			1.00
	Actual			0.92						2.95	1.05		1.03	1.06		0.97			1.04
2 of 51	Expected	1.00		1.00					1.00				1.00	1.00	1.00	2.00			1.00
	Actual	1.00		1.02					1.01				1.08	1.03	0.95	1.99			1.04
3 of 51	Expected			1.00			1.00						1.00	3.00		1.00			2.00
	Actual			1.00			1.02						1.05	2.83		1.01			2.05
4 of 51	Expected						3.00	1.00							1.00	2.00			2.00
	Actual						3.06	1.02							1.04	2.05			2.08
5 of 51	Expected	1.00		1.00		2.00	1.00							1.00	1.00	1.00			1.00
	Actual	1.00		1.04		2.04	1.06							1.07	0.98	1.04			0.93
6 of 51	Expected	1.00		1.00	1.00	1.00	1.00			1.00						1.00			1.00
	Actual	1.00		1.01	0.00 <sup>a</sup>	1.00	1.00			0.99				0.63 <sup>a</sup>		1.01			1.03
7 of 51	Expected	2.00		1.00	1.00	2.00				1.00									1.00
	Actual	2.00		1.00	0.00 <sup>a</sup>	2.08				1.01				0.76 <sup>a</sup>		0.98			1.01
8 of 51	Expected		1.00	1.00		2.00	1.00									2.00	1.00		1.00
	Actual		1.03	0.64		1.99	1.02									1.94	0.00 <sup>b</sup>		1.04
9 of 51	Expected		1.00	2.00		1.00				1.00						2.00	1.00		1.00
	Actual		1.05	1.72		1.03				1.04						1.97	0.00 <sup>b</sup>		1.07
10 of 51	Expected	1.00		1.00						2.00	1.00	1.00				3.00			
	Actual	1.00		1.10						2.04	0.99	1.00				2.80			
11 of 51	Expected	1.00	1.00	1.00		1.00	1.00			1.00	2.00					1.00			
	Actual	1.00	1.02	0.99		0.99	1.01			1.00	1.98					0.87			
12 of 51	Expected	1.00	2.00	1.00		1.00	1.00			1.00	2.00								
	Actual	1.01	2.04	1.00		1.00	1.02			0.98	1.96								
13 of 51	Expected	1.00	3.00				1.00		1.00	1.00	2.00								
	Actual	1.01	3.05				1.00		0.96	1.02	1.98								
14 of 51	Expected	2.00	2.00						1.00	1.00	2.00								1.00
	Actual	2.03	2.04						0.97	1.04	1.99								1.01
15 of 51	Expected	2.00	2.00				1.00		1.00			1.00		1.00		1.00			
	Actual	2.02	2.01				1.01		0.95			0.95		1.13		0.98			
16 of 51	Expected	2.00				1.00	1.00		2.00			1.00		1.00		1.00			
	Actual	1.88				0.98	0.96		2.10			1.02		1.07		1.01			
17 of 51	Expected		1.00			1.00	2.00		1.00			1.00	1.00	1.00		1.00			
	Actual		1.01			1.02	2.04		0.96			0.81	1.03	1.20		1.01			
18 of 51	Expected			1.00		1.00	2.00			1.00	2.00					1.00			1.00
	Actual			0.97		0.98	1.99			0.99	1.96					1.07			1.01
19 of 51	Expected	1.00		1.00		1.00	2.00			1.00	3.00								
	Actual	0.99		0.99		1.00	2.02			1.02	2.97								
20 of 51	Expected	2.00		1.00		1.00	1.00			1.00	3.00								
	Actual	1.98		0.99		0.99	1.00			1.05	2.94								
21 of 51	Expected	2.00		1.00		1.00				1.00	3.00								1.00
	Actual	1.97		1.00		1.00				0.99	2.99								1.02
22 of 51	Expected	2.00	1.00	1.00						1.00	2.00								2.00
	Actual	1.97	0.99	0.99						1.08	1.92								1.60 <sup>c</sup>
23 of 51	Expected	1.00	1.00	1.00						1.00	2.00	1.00							2.00
	Actual	1.00	1.03	0.99						1.00	2.00	0.98							1.58 <sup>c</sup>
24 of 51	Expected	1.00		1.00					1.00		1.00	2.00	1.00	1.00	1.00				
	Actual	0.99		1.00					0.98		1.00	2.01	1.03	1.06	1.02				
25 of 51	Expected	1.00	1.00	1.00					1.00		1.00	2.00	1.00		1.00				
	Actual	0.99	1.06	1.00					0.98		1.00	2.04	1.04		1.00				

**Table 3 - 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)
<b>NRC-254: Influenza Virus A PB1 Peptides</b>																			
26 of 51	Expected	1.00	1.00	1.00						1.00	1.00	2.00	1.00		1.00				
	Actual	0.99	1.04	1.00						1.00	0.99	2.03	1.03		1.02				
27 of 51	Expected	1.00	1.00				2.00			1.00	2.00	1.00							1.00
	Actual	0.98	1.02				1.98			0.99	1.99	0.99							1.04
28 of 51	Expected	1.00	1.00				2.00			1.00	1.00	1.00	1.00						1.00
	Actual	0.99	1.02				1.99			0.99	1.00	0.96	1.03						1.01
29 of 51	Expected						2.00			1.00		4.00		1.00	1.00				
	Actual						1.89			1.06		4.04		1.13	0.94				
30 of 51	Expected						2.00					4.00	1.00	1.00	1.00				
	Actual						2.13					3.92	0.96	1.10	0.99				
31 of 51	Expected			1.00			1.00			1.00		5.00	1.00						
	Actual			0.96			0.96			1.04	0.10	4.85	1.07						
32 of 51	Expected			1.00			1.00			1.00		2.00	1.00		1.00	1.00			1.00
	Actual			0.97			0.98			1.06		1.96	1.10		0.95	0.96			1.12
33 of 51	Expected			1.00						2.00		2.00	1.00		1.00	1.00			1.00
	Actual			0.96						2.09		1.89	1.11		0.97	0.98			1.13
34 of 51	Expected			1.00			1.00			2.00		1.00			1.00	1.00			2.00
	Actual			1.04			1.09			1.88		0.56			1.03	1.04			2.23
35 of 51	Expected			3.00		1.00	1.00			1.00			1.00		2.00				
	Actual			3.03		0.99	1.01			1.02			1.04		2.03				
36 of 51	Expected	1.00		2.00		1.00				2.00			1.00		2.00				
	Actual	1.00		2.04		1.00				2.04			1.04		2.03				
37 of 51	Expected	1.00		2.00					1.00	1.00			1.00		2.00				1.00
	Actual	1.05		1.92					0.87 <sup>c</sup>	1.08			1.10		1.82				0.95 <sup>c</sup>
38 of 51	Expected			1.00					1.00		3.00	1.00			2.00				1.00
	Actual			1.00					1.00		3.06	0.96			2.05				1.08
39 of 51	Expected					1.00	1.00						3.00		1.00	3.00			
	Actual					1.02	0.99						3.26		1.04	2.99			
40 of 51	Expected					1.00							4.00		1.00	2.00			1.00
	Actual					1.02							4.19		1.09	1.87			1.05
41 of 51	Expected		1.00			1.00							3.00		1.00	1.00			2.00
	Actual		1.05			1.00							3.14		1.04	0.98			2.06
42 of 51	Expected	1.00	1.00	1.00			1.00						2.00						2.00
	Actual	0.98	1.01	0.98			0.99						2.06						2.03
43 of 51	Expected	1.00		1.00		1.00				1.00		1.00	2.00		1.00				1.00
	Actual	1.14		1.06		1.08				0.97		0.60	1.92		1.02				1.13
44 of 51	Expected			1.00		1.00				1.00		1.00	2.00	1.00	2.00				
	Actual			0.97		0.99				1.01		0.95	2.06	1.13	2.01				
45 of 51	Expected		1.00	2.00				1.00	2.00	2.00									1.00
	Actual		1.04	1.98				0.98	1.87	2.07									1.02
46 of 51	Expected	2.00		1.00				1.00							1.00	2.00	1.00		1.00
	Actual	2.03		0.99				1.05							1.02	2.00	0.00 <sup>b</sup>		1.07
47 of 51	Expected		2.00	2.00					1.00	1.00	1.00				1.00	1.00			
	Actual		2.16	1.92					1.02	1.07	1.08				0.96	0.96			
48 of 51	Expected					1.00					1.00		2.00	1.00	3.00				1.00
	Actual					0.99					1.00		2.09	1.06	2.90				1.02
49 of 51	Expected		1.00								1.00		2.00	1.00	3.00				1.00
	Actual		1.04								1.00		2.11	0.97	2.94				1.04
50 of 51	Expected		2.00										2.00	1.00	3.00				1.00
	Actual		1.93										1.97	1.08	2.69				0.97
51 of 51	Expected	2.00	2.00			1.00			1.00			1.00			1.00				1.00
	Actual	1.90	2.16			0.98			1.04			1.00			0.94				1.10

**Table 3 - 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)
<b>NRC-255: Influenza Virus A PB2 Peptides</b>																			
1 of 30	Expected	1.00		1.00				1.00	2.00			1.00				2.00			1.00
	Actual	1.00		0.94				1.08	1.61 <sup>c</sup>			0.98				1.91			1.09
2 of 30	Expected	1.00		1.00				1.00	2.00		1.00	1.00				1.00			1.00
	Actual	1.01		1.02				1.02	1.39 <sup>c</sup>		1.01	0.98				0.97			1.04
3 of 30	Expected	1.00		1.00				1.00	2.00		2.00	1.00							1.00
	Actual	1.07		1.02				0.97	1.61 <sup>c</sup>		2.03	0.93							1.00
4 of 30	Expected		1.00				1.00		2.00		2.00				1.00	1.00			1.00
	Actual		1.14				0.99		1.55 <sup>c</sup>		2.18				0.99	1.01			1.07
5 of 30	Expected		1.00			2.00	1.00				2.00				1.00	1.00			1.00
	Actual		1.09			1.86	0.97				2.10				0.91	0.96			1.04
6 of 30	Expected	1.00	1.00							1.00	1.00	4.00						1.00	
	Actual	1.14	1.01							0.93	1.05	2.17						0.00 <sup>b</sup>	
7 of 30	Expected	1.00									2.00	4.00						1.00	1.00
	Actual	1.06									1.98	3.76						0.00 <sup>b</sup>	1.01
8 of 30	Expected	1.00							1.00		1.00	3.00		1.00				1.00	1.00
	Actual	1.09							0.92		1.07	2.78		1.07				0.00 <sup>b</sup>	0.93
9 of 30	Expected	1.00		1.00		3.00			1.00			1.00							2.00
	Actual	1.11		1.05		3.02			0.69 <sup>c</sup>			0.73							1.89 <sup>c</sup>
10 of 30	Expected			1.00		2.00			1.00			1.00	1.00						3.00
	Actual			1.20		2.22			0.68 <sup>c</sup>			1.00	1.04						2.54 <sup>c</sup>
11 of 30	Expected	1.00	1.00			2.00				2.00		1.00						1.00	1.00
	Actual	1.01	1.05			1.82				1.95		0.68						1.00	1.06
12 of 30	Expected		2.00			2.00				2.00		1.00							1.00
	Actual		2.00			1.88				2.00		0.60						1.02	1.03
13 of 30	Expected		2.00			2.00				2.00	1.00	1.00							1.00
	Actual		2.03			1.87				1.98	1.03	0.80							1.03
14 of 30	Expected		3.00			2.00				1.00	1.00					1.00			1.00
	Actual		2.94			1.87				1.03	1.04					1.02			1.04
15 of 30	Expected		3.00			1.00				1.00	1.00		1.00			1.00			1.00
	Actual		3.03			0.95				1.00	1.03		1.03			1.01			1.01
16 of 30	Expected		2.00			1.00				2.00	1.00		1.00			1.00			1.00
	Actual		2.03			0.96				1.99	1.03		1.04			1.00			1.01
17 of 30	Expected		2.00							1.00	1.00		1.00	1.00		1.00			2.00
	Actual		2.04							1.01	1.02		1.02	0.99		0.98			2.00
18 of 30	Expected				1.00	1.00	1.00	1.00		2.00						2.00	1.00		
	Actual				0.00 <sup>a</sup>	0.99	0.97	1.05		1.99				0.53 <sup>a</sup>		1.61	0.00 <sup>b</sup>		
19 of 30	Expected				1.00	1.00		1.00		2.00		1.00			2.00	1.00			
	Actual				0.00 <sup>a</sup>	1.03		1.03		2.09		0.91		0.66 <sup>a</sup>	2.13	1.07			
20 of 30	Expected						2.00						3.00		4.00				
	Actual						2.24						2.86		4.08				
21 of 30	Expected						2.00						4.00		2.00	1.00			
	Actual						2.15						3.84		2.09	1.07			
22 of 30	Expected	1.00	1.00	2.00			1.00			1.00	1.00		1.00						1.00
	Actual	1.00	0.99	1.98			1.00			1.01	0.98		1.02						1.01
23 of 30	Expected	1.00	2.00	2.00		1.00				1.00			1.00						1.00
	Actual	0.99	2.01	1.98		0.99				1.01			1.01						1.00
24 of 30	Expected	1.00	2.00	2.00		1.00				1.00		1.00		1.00					
	Actual	0.97	2.00	1.97		0.99				1.00		0.80		1.06					
25 of 30	Expected		1.00	1.00		2.00		1.00		2.00		1.00		1.00					
	Actual		1.04	1.02		2.05		1.07		1.80		0.92		1.02					

Table 3- 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)
<b>NRC-255: Influenza Virus A PB2 Peptides</b>																			
26 of 30	Expected		1.00	1.00		1.00		1.00		3.00		1.00		1.00					
	Actual		1.04	0.99		1.05		1.04		2.67		0.94		1.05					
27 of 30	Expected	1.00	1.00			1.00	1.00			1.00			1.00		1.00				2.00
	Actual	1.08	1.04			1.03	1.05			0.92			0.93		0.99				2.11
28 of 30	Expected	1.00		1.00		1.00			1.00	1.00					2.00	2.00			
	Actual	1.14		1.05		1.03			0.93	0.97					2.03	2.01			
29 of 30	Expected	1.00		1.00		1.00			1.00	1.00					1.00	3.00			
	Actual	1.20		1.08		1.07			0.94	0.97					1.07	3.05			
30 of 30	Expected	1.00		1.00		1.00				1.00	1.00				1.00	3.00			
	Actual	1.12		1.03		1.02				0.89	1.02				1.06	3.00			
<sup>a</sup> Cys was partially destroyed during hydrolysis and Cys degradation products co-elute with Pro <sup>b</sup> Trp was completely destroyed during hydrolysis <sup>c</sup> Val-Ile, Val-Val, Ile-Ile and/or Ile-Val bonds were partially destroyed during hydrolysis																			

**Date:** 07 APR 2008

**Signature:** Signature on File

**Title:** Technical Manager, BEI Authentication or designee

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