Peptide Array, Influenza Virus A/New York/348/2003 (H1N1) PB2 Protein

Catalog No. NR-2616

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Contributor:
BEI Resources

Manufacturer:
Bio-Synthesis, Inc.

Product Description:
The 126-peptide array spans the PB2 protein of the A/New York/348/2003 (H1N1) strain of influenza virus (GenPept: ABA12739).[1] Peptides are 16- to 17-mers, with 11 or 12 amino acid overlaps. Please see Table 1 for length and sequence of individual peptides.

Material Provided:
Peptides are provided lyophilized at 1 mg per vial.

Packaging/Storage:
Lyophilized peptides should be placed in a closed dry environment with dessicants and stored at -20ºC or colder immediately upon arrival. A frost-free freezer should be avoided, since changes in moisture and temperature may affect peptide stability.

Solubility:
Solubility may vary based on the amino acid content of the individual peptide (see Table 2).

Reconstitution:
Lyophilized peptides should be warmed to room temperature for 1 hour prior to reconstitution. They should be dissolved at the highest possible concentration, and then diluted with water or buffer to the working concentration. Buffer should be added only after the peptide is completely in solution because salts may cause aggregation.

The most common dissolution process is 1 mg of peptide in 1 mL of sterile, distilled water. Peptides that are not soluble in water can almost always be dissolved in DMSO. Once a peptide is in solution, the DMSO can be slowly diluted with aqueous medium. Care must be taken to ensure that the peptide does not begin to precipitate out of solution. For cell-based assays, 0.5% DMSO in medium is usually well-tolerated.

Sonication and/or the addition of small amounts of dilute (10%) aqueous acetic acid for basic peptides, aqueous ammonia for acidic peptides or acetonitrile may also help dissolution (see Table 2). These solvents may not be appropriate for certain applications, including cell-based assays.

Storage of Reconstituted Peptides:
The shelf life of peptides in solution is very limited, especially for sequences containing cysteine, methionine, tryptophan, asparagine, glutamine, and N-terminal glutamic acid. In general, peptides may be aliquoted and stored in solution for a few days at -20ºC or colder. For long-term storage, peptides should be re-lyophilized and stored at -20ºC or colder. If long-term storage in solution is unavoidable, peptide solutions should be buffered to pH 5–6, aliquoted and stored at -20ºC or colder. Freeze-thaw cycles should be avoided.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Peptide Array, Influenza Virus A/New York/348/2003 (H1N1) PB2 Protein, NR-2616."

Biosafety Level: 1
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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Product Information Sheet for NR-2616

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References:

1. Ghedin, E., et al. "The NIAID Influenza Genome Sequencing Project." Direct submission (2005). GenPept: ABA12739.

Support Provided by NIAID

Table 1

Peptide	Length	Sequence
1 of 126	17	1 MERIKELRNLMSQSRTR 17
2 of 126	17	7 LRNLMSQSRTREILTKT 23
3 of 126	17	12 SQSRTREILTKTTVDHM 28
4 of 126	17	18 EILTKTTVDHMAIIKKY 34
5 of 126	17	24 TVDHMAIIKKYTSGRQE 40
6 of 126	17	30 IIKKYTSGRQEKNPSLR 46
7 of 126	17	36 SGRQEKNPSLRMKWMMA 52
8 of 126	17	42 NPSLRMKWMMAMKYPIT 58
9 of 126	17	48 KWMMAMKYPITADKRIT 64
10 of 126	17	54 KYPITADKRITEMIPER 70
11 of 126	17	60 DKRITEMIPERNEQGQT 76
12 of 126	17	66 MIPERNEQGQTLWSKVN 82
13 of 126	17	72 EQGQTLWSKVNDAGSDR 88
14 of 126	17	78 WSKVNDAGSDRVMISPL 94
15 of 126	17	84 AGSDRVMISPLAVTWWN 100
16 of 126	17	90 MISPLAVTWWNRNGPVA 106
17 of 126	17	96 VTWWNRNGPVANTIHYP 112
18 of 126	17	102 NGPVANTIHYPKIYKTY 118
19 of 126	17	108 TIHYPKIYKTYFEKVER 124
20 of 126	17	114 IYKTYFEKVERLKHGTF 130
21 of 126	17	120 EKVERLKHGTFGPVHFR 136
22 of 126	17	126 KHGTFGPVHFRNQVKIR 142
23 of 126	17	132 PVHFRNQVKIRRRVDIN 148
24 of 126	17	137 NQVKIRRRVDINPGHAD 153
25 of 126	17	143 RRVDINPGHADLSAKEA 159
26 of 126	17	149 PGHADLSAKEAQDVIME 165
27 of 126	17	155 SAKEAQDVIMEVVFPNE 171
28 of 126	17	161 DVIMEVVFPNEVGARIL 177
29 of 126	17	167 VFPNEVGARILTSESQL 183
30 of 126	17	173 GARILTSESQLTITKEK 189
31 of 126	17	179 SESQLTITKEKKEELQN 195
32 of 126	17	185 ITKEKKEELQNCKISPL 201
33 of 126	17	191 EELQNCKISPLMVAYML 207
34 of 126	17	197 KISPLMVAYMLERELVR 213
35 of 126	17	203 VAYMLERELVRKTRFLP 219

Table 1		
Peptide	**Length**	**Sequence**
36 of 126	17	209 RELVRKTRFLPVAGGTS 225
37 of 126	17	215 TRFLPVAGGTSSVYIEV 231
38 of 126	17	221 AGGTSSVYIEVLHLTQG 237
39 of 126	17	227 VYIEVLHLTQGTCWEQM 243
40 of 126	17	233 HLTQGTCWEQMYTPGGE 249
41 of 126	17	239 CWEQMYTPGGEVRNDDV 255
42 of 126	17	245 TPGGEVRNDDVDQSLII 261
43 of 126	17	251 RNDDVDQSLIIAARNIV 267
44 of 126	17	256 DQSLIIAARNIVRRAAV 272
45 of 126	17	262 AARNIVRRAAVSADPLA 278
46 of 126	16	268 RRAAVSADPLASLLEM 283
47 of 126	17	273 SADPLASLLEMCHSTQI 289
48 of 126	17	279 SLLEMCHSTQIGGTRMV 295
49 of 126	17	285 HSTQIGGTRMVDILRQN 301
50 of 126	17	291 GTRMVDILRQNPTEEQA 307
51 of 126	17	297 ILRQNPTEEQAVDICKA 313
52 of 126	17	303 TEEQAVDICKAAMGLRI 319
53 of 126	17	309 DICKAAMGLRISSSFSF 325
54 of 126	17	315 MGLRISSSFSFGGFTFK 331
55 of 126	17	321 SSFSFGGFTFKRTSGSS 337
56 of 126	17	327 GFTFKRTSGSSVKREEE 343
57 of 126	17	333 TSGSSVKREEEVLTGNL 349
58 of 126	17	339 KREEEVLTGNLQTLKLT 355
59 of 126	17	345 LTGNLQTLKLTVHEGYE 361
60 of 126	17	351 TLKLTVHEGYEEFTMVG 367
61 of 126	17	357 HEGYEEFTMVGKRATAI 373
62 of 126	17	363 FTMVGKRATAILRKATR 379
63 of 126	17	369 RATAILRKATRRLIQLI 385
64 of 126	17	375 RKATRRLIQLIVSGRDE 391
65 of 126	17	381 LIQLIVSGRDEQSIVEA 397
66 of 126	17	387 SGRDEQSIVEAIVVAMV 403
67 of 126	16	393 SIVEAIVVAMVFSQED 408
68 of 126	17	398 IVVAMVFSQEDCMVKAV 414
69 of 126	17	404 FSQEDCMVKAVRGDLNF 420
70 of 126	17	410 MVKAVRGDLNFVNRANQ 426
71 of 126	17	416 GDLNFVNRANQRLNPMH 432
72 of 126	17	422 NRANQRLNPMHQLLRHF 438
73 of 126	17	428 LNPMHQLLRHFQKDAKV 444
74 of 126	17	434 LLRHFQKDAKVLFLNWG 450
75 of 126	17	440 KDAKVLFLNWGIEHIDN 456
76 of 126	17	446 FLNWGIEHIDNVMGMIG 462
77 of 126	17	452 EHIDNVMGMIGILPDMT 468
78 of 126	17	458 MGMIGILPDMTPSTEMS 474
79 of 126	17	464 LPDMTPSTEMSMRGVRV 480
80 of 126	17	470 STEMSMRGVRVSKMGVD 486

Table 1		
Peptide	**Length**	**Sequence**
81 of 126	17	476 RGVRVSKMGVDEYSNAE 492
82 of 126	17	482 KMGVDEYSNAERVVVSI 498
83 of 126	17	488 YSNAERVVVSIDRFLRV 504
84 of 126	17	494 VVVSIDRFLRVRDQRGN 510
85 of 126	17	500 RFLRVRDQRGNVLLSPE 516
86 of 126	17	506 DQRGNVLLSPEEVSETQ 522
87 of 126	17	512 LLSPEEVSETQGTEKLT 528
88 of 126	17	518 VSETQGTEKLTITYSSS 534
89 of 126	17	524 TEKLTITYSSSMMWEIN 540
90 of 126	17	530 TYSSSMMWEINGPESVL 546
91 of 126	17	536 MWEINGPESVLINTYQW 552
92 of 126	17	542 PESVLINTYQWIIRNWE 558
93 of 126	17	548 NTYQWIIRNWETVKIQW 564
94 of 126	17	554 IRNWETVKIQWSQNPTM 570
95 of 126	17	560 VKIQWSQNPTMLYNKME 576
96 of 126	17	565 SQNPTMLYNKMEFEPFQ 581
97 of 126	17	571 LYNKMEFEPFQSLVPKA 587
98 of 126	17	577 FEPFQSLVPKAIRGQYS 593
99 of 126	17	583 LVPKAIRGQYSGFVRTL 599
100 of 126	17	589 RGQYSGFVRTLFQQMRD 605
101 of 126	17	595 FVRTLFQQMRDVLGTFD 611
102 of 126	17	600 FQQMRDVLGTFDTTQII 616
103 of 126	17	606 VLGTFDTTQIIKLLPFA 622
104 of 126	17	612 TTQIIKLLPFAAAPPKQ 628
105 of 126	17	618 LLPFAAAPPKQSRMQFS 634
106 of 126	17	624 APPKQSRMQFSSLTVNV 640
107 of 126	17	630 RMQFSSLTVNVRGSGMR 646
108 of 126	17	636 LTVNVRGSGMRILVRGN 652
109 of 126	17	642 GSGMRILVRGNSPVFNY 658
110 of 126	17	648 LVRGNSPVFNYNKTTKR 664
111 of 126	17	654 PVFNYNKTTKRLTILGK 670
112 of 126	17	660 KTTKRLTILGKDAGTLT 676
113 of 126	17	666 TILGKDAGTLTEDPDEG 682
114 of 126	17	672 AGTLTEDPDEGTAGVES 688
115 of 126	17	678 DPDEGTAGVESAVLRGF 694
116 of 126	17	684 AGVESAVLRGFLILGKE 700
117 of 126	17	690 VLRGFLILGKEDRRYGP 706
118 of 126	17	696 ILGKEDRRYGPALSINE 712
119 of 126	17	702 RRYGPALSINELSNLAK 718
120 of 126	17	708 LSINELSNLAKGEKANV 724
121 of 126	17	714 SNLAKGEKANVLIGQGD 730
122 of 126	17	720 EKANVLIGQGDVVLVMK 736
123 of 126	17	726 IGQGDVVLVMKRKRDSS 742
124 of 126	17	732 VLVMKRKRDSSILTDSQ 748
125 of 126	17	738 KRDSSILTDSQTATKRI 754
126 of 126	16	744 LTDSQTATKRIRMAIN 759

Table 2		
Peptide	**Solubility**	**Solvent**
1 of 126	1 mg/mL	50% acetic acid in water
2 of 126	1 mg/mL	50% acetic acid in water
3 of 126	1 mg/mL	50% acetic acid in water
4 of 126	1 mg/mL	50% acetic acid in water
5 of 126	1 mg/mL	50% acetic acid in water
6 of 126	1 mg/mL	Water
7 of 126	1 mg/mL	50% acetic acid in water
8 of 126	1 mg/mL	70% acetonitrile in water
9 of 126	1 mg/mL	Water
10 of 126	1 mg/mL	Water
11 of 126	1 mg/mL	50% acetic acid in water
12 of 126	1 mg/mL	50% acetic acid in water
13 of 126	1 mg/mL	50% acetic acid in water
14 of 126	1 mg/mL	50% acetic acid in water
15 of 126	1 mg/mL	50% acetic acid in water
16 of 126	1 mg/mL	50% acetic acid in water
17 of 126	1 mg/mL	50% acetic acid in water
18 of 126	1 mg/mL	50% acetic acid in water
19 of 126	1 mg/mL	50% acetic acid in water
20 of 126	1 mg/mL	50% acetic acid in water
21 of 126	1 mg/mL	50% acetic acid in water
22 of 126	1 mg/mL	50% acetic acid in water
23 of 126	1 mg/mL	Water
24 of 126	1 mg/mL	50% acetic acid in water
25 of 126	1 mg/mL	Water
26 of 126	1 mg/mL	50% acetic acid in water
27 of 126	1 mg/mL	50% acetic acid in water
28 of 126	1 mg/mL	50% acetic acid in water
29 of 126	1 mg/mL	70% acetonitrile in water
30 of 126	1 mg/mL	50% acetic acid in water
31 of 126	1 mg/mL	50% acetic acid in water
32 of 126	1 mg/mL	70% acetonitrile in water
33 of 126	1 mg/mL	50% acetic acid in water
34 of 126	1 mg/mL	50% acetic acid in water
35 of 126	1 mg/mL	50% acetic acid in water
36 of 126	1 mg/mL	50% acetic acid in water
37 of 126	1 mg/mL	50% acetic acid in water
38 of 126	1 mg/mL	50% acetic acid in water
39 of 126	1 mg/mL	100% DMSO
40 of 126	1 mg/mL	50% acetic acid in water
41 of 126	1 mg/mL	50% acetic acid in water
42 of 126	1 mg/mL	50% acetic acid in water
43 of 126	1 mg/mL	50% acetic acid in water
44 of 126	1 mg/mL	50% acetic acid in water
45 of 126	1 mg/mL	50% acetic acid in water
46 of 126	1 mg/mL	50% acetic acid in water
47 of 126	1 mg/mL	50% acetic acid in water
48 of 126	1 mg/mL	70% acetonitrile in water
49 of 126	1 mg/mL	70% acetonitrile in water
50 of 126	1 mg/mL	70% acetonitrile in water

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Table 2		
Peptide	**Solubility**	**Solvent**
51 of 126	1 mg/mL	70% acetonitrile in water
52 of 126	1 mg/mL	70% acetonitrile in water
53 of 126	1 mg/mL	50% acetic acid in water
54 of 126	1 mg/mL	100% DMSO
55 of 126	1 mg/mL	100% DMSO
56 of 126	1 mg/mL	70% acetonitrile in water
57 of 126	1 mg/mL	100% DMSO
58 of 126	1 mg/mL	100% DMSO
59 of 126	1 mg/mL	50% acetic acid in water
60 of 126	1 mg/mL	50% acetic acid in water
61 of 126	1 mg/mL	50% acetic acid in water
62 of 126	1 mg/mL	50% acetic acid in water
63 of 126	1 mg/mL	50% acetic acid in water
64 of 126	1 mg/mL	50% acetic acid in water
65 of 126	1 mg/mL	50% acetic acid in water
66 of 126	1 mg/mL	100% DMSO
67 of 126	1 mg/mL	100% DMSO
68 of 126	1 mg/mL	100% DMSO
69 of 126	1 mg/mL	50% acetic acid in water
70 of 126	1 mg/mL	Water
71 of 126	1 mg/mL	Water
72 of 126	1 mg/mL	Water
73 of 126	1 mg/mL	Water
74 of 126	1 mg/mL	Water
75 of 126	1 mg/mL	Water
76 of 126	1 mg/mL	50% acetic acid in water
77 of 126	1 mg/mL	50% acetic acid in water
78 of 126	1 mg/mL	50% acetic acid in water
79 of 126	1 mg/mL	50% acetic acid in water
80 of 126	1 mg/mL	50% acetic acid in water
81 of 126	1 mg/mL	50% acetic acid in water
82 of 126	1 mg/mL	50% acetic acid in water
83 of 126	1 mg/mL	100% DMSO
84 of 126	1 mg/mL	70% acetonitrile in water
85 of 126	1 mg/mL	50% acetic acid in water
86 of 126	1 mg/mL	50% acetic acid in water
87 of 126	1 mg/mL	50% acetic acid in water
88 of 126	1 mg/mL	100% DMSO
89 of 126	1 mg/mL	100% DMSO
90 of 126	1 mg/mL	100% DMSO
91 of 126	1 mg/mL	100% DMSO
92 of 126	1 mg/mL	100% DMSO
93 of 126	1 mg/mL	50% acetic acid in water
94 of 126	1 mg/mL	50% acetic acid in water
95 of 126	1 mg/mL	70% acetonitrile in water
96 of 126	1 mg/mL	Water
97 of 126	1 mg/mL	Water
98 of 126	1 mg/mL	50% acetic acid in water
99 of 126	1 mg/mL	50% acetic acid in water
100 of 126	1 mg/mL	50% acetic acid in water

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Table 2		
Peptide	**Solubility**	**Solvent**
101 of 126	1 mg/mL	70% acetonitrile in water
102 of 126	1 mg/mL	70% acetic acid in water
103 of 126	1 mg/mL	70% acetic acid in water
104 of 126	1 mg/mL	Water
105 of 126	1 mg/mL	Water
106 of 126	1 mg/mL	70% acetic acid in water
107 of 126	1 mg/mL	Water
108 of 126	1 mg/mL	70% acetic acid in water
109 of 126	1 mg/mL	50% acetic acid in water
110 of 126	1 mg/mL	Water
111 of 126	1 mg/mL	70% acetonitrile in water
112 of 126	1 mg/mL	Water
113 of 126	1 mg/mL	70% acetonitrile in water
114 of 126	1 mg/mL	Water
115 of 126	1 mg/mL	70% acetonitrile in water
116 of 126	1 mg/mL	70% acetonitrile in water
117 of 126	1 mg/mL	Water
118 of 126	1 mg/mL	Water
119 of 126	1 mg/mL	Water
120 of 126	1 mg/mL	Water
121 of 126	1 mg/mL	0.05% trifluoroacetic acid in water
122 of 126	1 mg/mL	0.05% trifluoroacetic acid in water
123 of 126	1 mg/mL	0.05% trifluoroacetic acid in water
124 of 126	1 mg/mL	70% acetonitrile in water
125 of 126	1 mg/mL	0.05% trifluoroacetic acid in water
126 of 126	1 mg/mL	0.05% trifluoroacetic acid in water

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