

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

Catalog No. NR-2618

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

For research use only. Not for human use.

Contributor:

BEI Resources

Manufacturer:

Bio-Synthesis, Inc.

Product Description:

The 119-peptide array spans the PA protein of the A/New York/348/2003 (H1N1) strain of influenza virus (GenPept: ABA12736).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 -20°C 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 -20°C or colder. For long-term storage, peptides should be re-lyophilized and stored at -20°C or colder. If long-term storage in solution is unavoidable, peptide solutions should be buffered to pH 5–6, aliquoted and stored at -20°C 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) PA Protein, NR-2618."

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.

Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI

Product Information Sheet for NR-2618

Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need

a license before first commercial sale. This material may be subject to third party patent rights.

References:

1. Ghedin, E., et al. "The NIAID Influenza Genome Sequencing Project." Direct submission (2005). GenPept: ABA12736.

ATCC® is a trademark of the American Type Culture Collection.



Table 1		
Peptide	Length	Sequence
1 of 119	17	1 MEDFVRQCFNPMIVELA 17
2 of 119	17	6 RQCFNPMIVELA EKAMK 22
3 of 119	17	12 MIVELA EKAMKEYGEDL 28
4 of 119	17	18 EKAMKEYGEDLKIETNK 34
5 of 119	17	24 YGEDLKIETNKFAAICT 40
6 of 119	17	30 IETNKFAAICTHLEVCF 46
7 of 119	17	36 AAICTHLEVCFMYSDFH 52
8 of 119	17	42 LEVCFMYSDFHFINEQG 58
9 of 119	17	48 YSDFHFINEQGESIIVE 64
10 of 119	17	54 INEQGESIIVEPEDPNA 70
11 of 119	17	60 SIIVEPEDPNALLKHRF 76
12 of 119	17	66 EDPNALLKHRFEIIEGR 82
13 of 119	17	72 LKHRFEIIEGRDRTMAW 88
14 of 119	17	78 IIEGRDRTMAWTVVNSI 94
15 of 119	17	84 RTMAWTVVNSICNTTGA 100
16 of 119	17	90 VVNSICNTTGA EKPKFL 106
17 of 119	17	96 NTTGA EKPKFLPDLYDY 112
18 of 119	17	102 KPKFLPDLYDYKENRFI 118
19 of 119	17	108 DLYDYKENRFIEIGVTR 124
20 of 119	17	114 ENRFIEIGVTRREVHIY 130
21 of 119	17	120 IGVTRREVHIYYLEKAN 136
22 of 119	17	126 EVHIYYLEKANKIKSEK 142
23 of 119	17	132 LEKANKIKSEKTHIHIF 148
24 of 119	17	138 IKSEKTHIHIFSFTGEE 154
25 of 119	17	144 HIHIFSFTGEEMATKAD 160
26 of 119	17	150 FTGEEMATKADYTLDEE 166
27 of 119	17	156 ATKADYTLDEESRARIK 172
28 of 119	17	162 TLDEESRARIKTRLFTI 178
29 of 119	17	168 RARIKTRLFTIRQEMAS 184
30 of 119	17	174 RLFTIRQEMASRGLWDS 190
31 of 119	17	179 RQEMASRGLWDSFRQSE 195
32 of 119	17	185 RGLWDSFRQSERGEETI 201
33 of 119	17	191 FRQSERGEETIEERFEI 207
34 of 119	17	197 GEETIEERFEITGTLRR 213
35 of 119	17	203 ERFEITGTLRRRLADQSL 219

Table 1		
Peptide	Length	Sequence
36 of 119	16	209 GTLRRRLADQSLPPNFS 224
37 of 119	17	214 LADQSLPPNFSCIENFR 230
38 of 119	17	220 PPNFSCIENFRAYVDGF 236
39 of 119	17	226 IENFRAYVDGFEPNGYI 242
40 of 119	17	232 YVDGFEPNGYIEGKLSQ 248
41 of 119	17	238 PNGYIEGKLSQMSKEVN 254
42 of 119	17	244 GKLSQMSKEVNARIEPF 260
43 of 119	17	250 SKEVNARIEPFLLKTTTPR 266
44 of 119	17	256 RIEPFLLKTTTPRIRLPN 272
45 of 119	17	262 KTTTPRIRLPNGPPCFQ 278
46 of 119	17	268 IRLPNGPPCFQRSKFL 284
47 of 119	17	274 PPCFQRSKFLLMDSLKL 290
48 of 119	17	280 SKFLLMDSLKLSIEDPN 296
49 of 119	17	286 DSLKLSIEDPNHEGEGI 302
50 of 119	17	292 IEDPNHEGEGIPLYDAI 308
51 of 119	17	298 EGEGIPLYDAIKCMRTF 314
52 of 119	17	304 LYDAIKCMRTFFGWKEP 320
53 of 119	17	310 CMRTFFGWKEPTVVKPH 326
54 of 119	17	316 GWKEPTVVKPHEKGINP 332
55 of 119	17	322 VVKPHEKGINPNYLLSW 338
56 of 119	17	328 KGINPNYLLSWKQVLEE 344
57 of 119	17	334 YLLSWKQVLEELQDIES 350
58 of 119	17	339 QQVLEELQDIESEEKIP 355
59 of 119	17	345 LQDIESEEKIPRTKNMK 361
60 of 119	17	351 EEKIPRTKNMKKTSQK 367
61 of 119	17	357 TKNMKKTSQKQWALGEN 373
62 of 119	17	363 TSQKQWALGENMAPEKV 379
63 of 119	17	369 ALGENMAPEKVDFDDCK 385
64 of 119	17	375 APEKVDFDDCKGISDLK 391
65 of 119	17	381 FDDCKGISDLKQYDSDE 397
66 of 119	17	387 ISDLKQYDSDEPELRSF 403
67 of 119	17	393 YDSDEPELRSFSSWIQN 409
68 of 119	16	399 ELRSFSSWIQNEFNKA 414
69 of 119	17	404 SSWIQNEFNKACELTDS 420
70 of 119	17	410 EFNKACELTDSIWIELD 426
71 of 119	17	416 ELTDSIWIELDEIGEDV 432
72 of 119	17	422 WIELDEIGEDVAPIEHI 438
73 of 119	17	428 IGEDVAPIEHIASMRRN 444
74 of 119	17	434 PIEHIASMRRNFTAEV 450
75 of 119	17	440 SMRRNYFTAEVSHCRAT 456
76 of 119	17	446 FTAEVSHCRATEYIMKG 462
77 of 119	17	452 HCRATEYIMKGVYINTA 468
78 of 119	16	458 YIMKGVYINTALLNAS 473
79 of 119	17	463 VYINTALLNASCAAMDD 479
80 of 119	17	469 LLNASCAAMDDFQLIPM 485

Table 1		
Peptide	Length	Sequence
81 of 119	17	475 AAMDDFQLIPMISKCRT 491
82 of 119	17	480 FQLIPMISKCRTKEGRR 496
83 of 119	17	486 ISKCRTKEGRRKTNLYG 502
84 of 119	17	492 KEGRRKTNLYGFIKGR 508
85 of 119	17	498 TNLYGFIKGRSHLRND 514
86 of 119	17	504 IIKGRSHLRNDTDVVNF 520
87 of 119	17	510 HLRNDTDVVNFVSMEFS 526
88 of 119	17	516 DVVNFVSMEFSLTDPRL 532
89 of 119	17	522 SMEFSLTDPRLPHKWE 538
90 of 119	17	528 TDPRLEPHKWEKYCVLE 544
91 of 119	17	534 PHKWEKYCVLEIGDMLL 550
92 of 119	17	540 YCVLEIGDMLLRSAIGQ 556
93 of 119	17	546 GDMLLRSAIGQVSRPMF 562
94 of 119	17	552 SAIGQVSRPMFLYVRTN 568
95 of 119	17	558 SRPMFLYVRTNGTSKIK 574
96 of 119	17	564 YVRTNGTSKIKMKWGME 580
97 of 119	17	570 TSKIKMKWGMEMRRCLL 586
98 of 119	17	576 KWGMEMRRCLLQSLQQI 592
99 of 119	17	582 RRCLLQSLQQIESMIEA 598
100 of 119	17	588 SLQQIESMIEAESSVKE 604
101 of 119	17	594 SMIEAESSVKEKDMTKE 610
102 of 119	17	600 SSVKEKDMTKEFFENRS 616
103 of 119	17	606 DMTKEFFENRSETWPIG 622
104 of 119	17	612 FENRSETWPIGESPKG 628
105 of 119	17	618 TWPIGESPKGVEEGSIG 634
106 of 119	17	624 SPKGVEEGSIGKVCRTL 640
107 of 119	17	630 EGSIGKVCRTLLAKSVF 646
108 of 119	17	636 VCRTLLAKSVFNLSLYAS 652
109 of 119	17	642 AKSVFNLSLYASPQLEGF 658
110 of 119	17	648 SLYASPQLEGFSAESRK 664
111 of 119	17	653 PQLEGFSAESRKLLIV 669
112 of 119	17	659 SAESRKLLIVQALRDN 675
113 of 119	17	665 LLLIVQALRDNLEPGTF 681
114 of 119	17	671 ALRDNLEPGTFDLGGLY 687
115 of 119	16	677 EPGTFDLGGLYEAIEE 692
116 of 119	17	682 DLGGLYEAIEECLINDP 698
117 of 119	17	688 EAIEECLINDPWVLLNA 704
118 of 119	17	694 LINDPWVLLNASWFNSF 710
119 of 119	17	700 VLLNASWFNSFLTHALR 716

Table 2		
Peptide	Solubility	Solvent
1 of 119	1 mg/mL	50% acetic acid in water
2 of 119	1 mg/mL	50% acetic acid in water
3 of 119	1 mg/mL	70% acetonitrile in water
4 of 119	1 mg/mL	70% acetonitrile in water
5 of 119	1 mg/mL	50% acetic acid in water
6 of 119	1 mg/mL	50% acetic acid in water
7 of 119	1 mg/mL	50% acetic acid in water
8 of 119	1 mg/mL	50% acetic acid in water
9 of 119	1 mg/mL	50% acetic acid in water
10 of 119	1 mg/mL	50% acetic acid in water
11 of 119	1 mg/mL	Water
12 of 119	1 mg/mL	50% acetic acid in water
13 of 119	1 mg/mL	50% acetic acid in water
14 of 119	1 mg/mL	50% acetic acid in water
15 of 119	1 mg/mL	100% DMSO
16 of 119	1 mg/mL	50% acetic acid in water
17 of 119	1 mg/mL	50% acetic acid in water
18 of 119	1 mg/mL	50% acetic acid in water
19 of 119	1 mg/mL	Water
20 of 119	1 mg/mL	50% acetic acid in water
21 of 119	1 mg/mL	Water
22 of 119	1 mg/mL	Water
23 of 119	1 mg/mL	50% acetic acid in water
24 of 119	1 mg/mL	Water
25 of 119	1 mg/mL	Water
26 of 119	1 mg/mL	50% acetic acid in water
27 of 119	1 mg/mL	50% acetic acid in water
28 of 119	1 mg/mL	50% acetic acid in water
29 of 119	1 mg/mL	50% acetic acid in water
30 of 119	1 mg/mL	50% acetic acid in water
31 of 119	1 mg/mL	50% acetic acid in water
32 of 119	1 mg/mL	50% acetic acid in water
33 of 119	1 mg/mL	50% acetic acid in water
34 of 119	1 mg/mL	50% acetic acid in water
35 of 119	1 mg/mL	50% acetic acid in water
36 of 119	1 mg/mL	50% acetic acid in water
37 of 119	1 mg/mL	50% acetic acid in water
38 of 119	1 mg/mL	50% acetic acid in water
39 of 119	1 mg/mL	50% acetic acid in water
40 of 119	1 mg/mL	50% acetic acid in water
41 of 119	1 mg/mL	50% acetic acid in water
42 of 119	1 mg/mL	50% acetic acid in water
43 of 119	1 mg/mL	50% acetic acid in water
44 of 119	1 mg/mL	50% acetic acid in water
45 of 119	1 mg/mL	50% acetic acid in water
46 of 119	1 mg/mL	50% acetic acid in water
47 of 119	1 mg/mL	50% acetic acid in water
48 of 119	1 mg/mL	50% acetic acid in water
49 of 119	1 mg/mL	50% acetic acid in water
50 of 119	1 mg/mL	0.05% trifluoroacetic acid in water

Table 2		
Peptide	Solubility	Solvent
51 of 119	1 mg/mL	70% acetonitrile in water
52 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
53 of 119	1 mg/mL	70% acetonitrile in water
54 of 119	1 mg/mL	70% acetonitrile in water
55 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
56 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
57 of 119	1 mg/mL	100% DMSO
58 of 119	1 mg/mL	70% acetonitrile in water
59 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
60 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
61 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
62 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
63 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
64 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
65 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
66 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
67 of 119	1 mg/mL	70% acetonitrile in water
68 of 119	1 mg/mL	100% DMSO
69 of 119	1 mg/mL	100% DMSO
70 of 119	1 mg/mL	100% DMSO
71 of 119	1 mg/mL	100% DMSO
72 of 119	1 mg/mL	70% acetonitrile in water
73 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
74 of 119	1 mg/mL	70% acetonitrile in water
75 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
76 of 119	1 mg/mL	70% acetonitrile in water
77 of 119	1 mg/mL	100% DMSO
78 of 119	1 mg/mL	100% DMSO
79 of 119	1 mg/mL	100% DMSO
80 of 119	1 mg/mL	100% DMSO
81 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
82 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
83 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
84 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
85 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
86 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
87 of 119	1 mg/mL	70% acetonitrile in water
88 of 119	1 mg/mL	100% DMSO
89 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
90 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
91 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
92 of 119	1 mg/mL	100% DMSO
93 of 119	1 mg/mL	70% acetonitrile in water
94 of 119	1 mg/mL	0.05% trifluoroacetic acid in water
95 of 119	1 mg/mL	70% acetonitrile in water
96 of 119	1 mg/mL	70% acetonitrile in water
97 of 119	1 mg/mL	70% acetonitrile in water
98 of 119	1 mg/mL	70% acetonitrile in water
99 of 119	1 mg/mL	100% DMSO
100 of 119	1 mg/mL	100% DMSO

Table 2		
Peptide	Solubility	Solvent
101 of 119	1 mg/mL	30% formic acid in water
102 of 119	1 mg/mL	50% acetic acid in water
103 of 119	1 mg/mL	70% acetonitrile in water
104 of 119	1 mg/mL	Water
105 of 119	1 mg/mL	Water
106 of 119	1 mg/mL	Water
107 of 119	1 mg/mL	Water
108 of 119	1 mg/mL	70% acetonitrile in water
109 of 119	1 mg/mL	70% acetonitrile in water
110 of 119	1 mg/mL	50% acetic acid in water
111 of 119	1 mg/mL	50% acetic acid in water
112 of 119	1 mg/mL	50% acetic acid in water
113 of 119	1 mg/mL	70% acetonitrile in water
114 of 119	1 mg/mL	70% acetonitrile in water
115 of 119	1 mg/mL	50% acetic acid in water
116 of 119	1 mg/mL	50% acetic acid in water
117 of 119	1 mg/mL	50% acetic acid in water
118 of 119	1 mg/mL	50% acetic acid in water
119 of 119	1 mg/mL	70% acetonitrile in water