Peptide Array, Influenza Virus A/New Caledonia/20/1999 (H1N1) Neuraminidase Protein

Catalog No. NR-2606

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

For research use only. Not for human use.

Contributor:
BEI Resources

Manufacturer:
American Peptide Company, Inc.

Product Description:
The 78-peptide array spans the neuraminidase (NA) protein of the A/New Caledonia/20/1999 (H1N1) strain of influenza virus (GenPept: CAD57252).[1] Peptides are 13- 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 desiccants 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). Peptides can almost always be dissolved in 100% DMSO.

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 or 1 mL of 100% DMSO. The DMSO can be slowly diluted to a lower concentration 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 Caledonia/20/1999 (H1N1) Neuraminidase Protein, NR-2606."

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

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. Gregory, V., et al. "Human Infection by a Swine Influenza A (H1N1) Virus in Switzerland." Arch. Virol. 148 (2003): 793-802. PubMed: 12664301. GenPept: CAD57252.

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

Support Provided by NIAID

Table 1		
Peptide	**Length**	**Sequence**
1 of 78	17	1 MNPNQKIITIGSISIAI 17
2 of 78	17	7 IITIGSISIAIGIISLM 23
3 of 78	17	13 ISIAIGIISLMLQIGNI 29
4 of 78	17	19 IISLMLQIGNIISIWAS 35
5 of 78	17	24 LQIGNIISIWASHSIQT 40
6 of 78	17	30 ISIWASHSIQTGSQNHT 46
7 of 78	17	36 HSIQTGSQNHTGVCNQR 52
8 of 78	17	42 SQNHTGVCNQRIITYEN 58
9 of 78	17	48 VCNQRIITYENSTWVNH 64
10 of 78	17	54 ITYENSTWVNHTYVNIN 70
11 of 78	17	60 TWVNHTYVNINNTNVVA 76
12 of 78	17	66 YVNINNTNVVAGKDKTS 82
13 of 78	17	72 TNVVAGKDKTSVTLAGN 88
14 of 78	17	78 KDKTSVTLAGNSSLCSI 94
15 of 78	17	84 TLAGNSSLCSISGWAIY 100
16 of 78	17	90 SLCSISGWAIYTKDNSI 106
17 of 78	17	96 GWAIYTKDNSIRIGSKG 112
18 of 78	17	102 KDNSIRIGSKGDVFVIR 118
19 of 78	16	108 IGSKGDVFVIREPFIS 123
20 of 78	16	113 DVFVIREPFISCSHLE 128
21 of 78	17	118 REPFISCSHLECRTFFL 134
22 of 78	17	124 CSHLECRTFFLTQGALL 140
23 of 78	17	130 RTFFLTQGALLNDKHSN 146
24 of 78	17	135 TQGALLNDKHSNGTVKD 151
25 of 78	17	141 NDKHSNGTVKDRSPYRA 157
26 of 78	17	147 GTVKDRSPYRALMSCPL 163
27 of 78	17	153 SPYRALMSCPLGEAPSP 169
28 of 78	17	159 MSCPLGEAPSPYNSKFE 175
29 of 78	17	165 EAPSPYNSKFESVAWSA 181
30 of 78	17	171 NSKFESVAWSASACHDG 187

Table 1		
Peptide	**Length**	**Sequence**
31 of 78	17	177 VAWSASACHDGMGWLTI 193
32 of 78	17	183 ACHDGMGWLTIGISGPD 199
33 of 78	17	189 GWLTIGISGPDNGAVAV 205
34 of 78	17	195 ISGPDNGAVAVLKYNGI 211
35 of 78	17	201 GAVAVLKYNGIITETIK 217
36 of 78	17	207 KYNGIITETIKSWKKRI 223
37 of 78	17	213 TETIKSWKKRILRTQES 229
38 of 78	17	219 WKKRILRTQESECVCVN 235
39 of 78	17	225 RTQESECVCVNGSCFTI 241
40 of 78	17	231 CVCVNGSCFTIMTDGPS 247
41 of 78	17	237 SCFTIMTDGPSNGAASY 253
42 of 78	17	243 TDGPSNGAASYKIFKIE 259
43 of 78	17	249 GAASYKIFKIEKGKVTK 265
44 of 78	17	255 IFKIEKGKVTKSIELNA 271
45 of 78	17	261 GKVTKSIELNAPNFHYE 277
46 of 78	17	267 IELNAPNFHYEECSCYP 283
47 of 78	17	273 NFHYEECSCYPDTGTVM 289
48 of 78	17	279 CSCYPDTGTVMCVCRDN 295
49 of 78	17	285 TGTVMCVCRDNWHGSNR 301
50 of 78	17	291 VCRDNWHGSNRPWVSFN 307
51 of 78	17	297 HGSNRPWVSFNQNLDYQ 313
52 of 78	17	303 WVSFNQNLDYQIGYICS 319
53 of 78	17	309 NLDYQIGYICSGVFGDN 325
54 of 78	17	315 GYICSGVFGDNPRPKDG 331
55 of 78	17	321 VFGDNPRPKDGEGSCNP 337
56 of 78	17	327 RPKDGEGSCNPVTVDGA 343
57 of 78	17	333 GSCNPVTVDGADGVKGF 349
58 of 78	17	339 TVDGADGVKGFSYKYGN 355
59 of 78	17	345 GVKGFSYKYGNGVWIGR 361
60 of 78	17	351 YKYGNGVWIGRTKSNRL 367
61 of 78	17	357 VWIGRTKSNRLRKGFEM 373
62 of 78	17	363 KSNRLRKGFEMIWDPNG 379
63 of 78	17	369 KGFEMIWDPNGWTDTDS 385
64 of 78	17	375 WDPNGWTDTDSDFSVKQ 391
65 of 78	17	381 TDTDSDFSVKQDVVAIT 397
66 of 78	17	387 FSVKQDVVAITDWSGYS 403
67 of 78	17	393 VVAITDWSGYSGSFVQH 409
68 of 78	17	399 WSGYSGSFVQHPELTGL 415
69 of 78	16	405 SFVQHPELTGLDCIRP 420
70 of 78	17	410 PELTGLDCIRPCFWVEL 426
71 of 78	17	416 DCIRPCFWVELVRGLPR 432
72 of 78	17	422 FWVELVRGLPRENTTIW 438

Table 1		
Peptide	**Length**	**Sequence**
73 of 78	17	428 RGLPRENTTIWTSGSSI 444
74 of 78	17	434 NTTIWTSGSSISFCGVN 450
75 of 78	17	440 SGSSISFCGVNSDTANW 456
76 of 78	17	446 FCGVNSDTANWSWPDGA 462
77 of 78	17	452 DTANWSWPDGAELPFTI 468
78 of 78	13	458 WPDGAELPFTIDK 470

Table 2			
Peptide	**Solubility**	**Solvent**	**Reconstitution pH, if required**
1 of 78	1 mg/mL	40% acetonitrile in water	pH 6
2 of 78	1 mg/mL	Water	
3 of 78	1 mg/mL	50% formic acid and 50% acetonitrile	pH 1
4 of 78	1 mg/mL	5% ammonium hydroxide in water	pH 11
5 of 78	1 mg/mL	2% formic acid and 40% acetonitrile in water	pH 3
6 of 78	1 mg/mL	10% acetonitrile in water	pH 6
7 of 78	1 mg/mL	10% acetonitrile in water	pH 6
8 of 78	1 mg/mL	20% acetonitrile in water	pH 6
9 of 78	1 mg/mL	20% acetonitrile in water	pH 6
10 of 78	1 mg/mL	5% formic acid and 20% acetonitrile in water	pH 3
11 of 78	1 mg/mL	50% formic acid and 50% acetonitrile	pH 1
12 of 78	1 mg/mL	10% acetonitrile in water	pH 6
13 of 78	1 mg/mL	20% acetonitrile in water	pH 6
14 of 78	1 mg/mL	20% acetonitrile in water	pH 6
15 of 78	1 mg/mL	20% acetonitrile and 2% acetic acid in water	pH 3
16 of 78	1 mg/mL	5% ammonium hydroxide in water	pH 11
17 of 78	1 mg/mL	20% acetonitrile in water	pH 6
18 of 78	1 mg/mL	20% acetonitrile in water	pH 6
19 of 78	1 mg/mL	20% acetonitrile in water	pH 6
20 of 78	1 mg/mL	20% acetonitrile in water	pH 6
21 of 78	1 mg/mL	30% acetonitrile in water	pH 6
22 of 78	1 mg/mL	30% acetonitrile in water	pH 6
23 of 78	1 mg/mL	20% acetonitrile in water	pH 6
24 of 78	1 mg/mL	10% acetonitrile in water	pH 6
25 of 78	1 mg/mL	10% acetonitrile in water	pH 6
26 of 78	1 mg/mL	20% acetonitrile in water	pH 6
27 of 78	1 mg/mL	20% acetonitrile in water	pH 6
28 of 78	1 mg/mL	20% acetonitrile in water	pH 6
29 of 78	1 mg/mL	20% acetonitrile in water	pH 6
30 of 78	1 mg/mL	20% acetonitrile in water	pH 6

BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898

Table 2			
Peptide	**Solubility**	**Solvent**	**Reconstitution pH, if required**
31 of 78	1 mg/mL	40% acetonitrile in water	pH 6
32 of 78	1 mg/mL	30% acetonitrile in water	pH 6
33 of 78	1 mg/mL	0.02% ammonia and 20% acetonitrile in water	pH 8
34 of 78	1 mg/mL	20% acetonitrile in water	pH 6
35 of 78	1 mg/mL	Water	
36 of 78	1 mg/mL	20% acetonitrile in water	pH 6
37 of 78	1 mg/mL	20% acetonitrile in water	pH 6
38 of 78	1 mg/mL	10% acetonitrile in water	pH 6
39 of 78	1 mg/mL	20% acetonitrile in water	pH 6
40 of 78	1 mg/mL	50% formic acid and 50% acetonitrile	pH 1
41 of 78	1 mg/mL	20% acetonitrile in water	pH 6
42 of 78	1 mg/mL	20% acetonitrile in water	pH 6
43 of 78	1 mg/mL	10% acetonitrile in water	pH 6
44 of 78	1 mg/mL	20% acetonitrile in water	pH 6
45 of 78	1 mg/mL	20% acetonitrile in water	pH 6
46 of 78	1 mg/mL	20% acetonitrile in water	pH 6
47 of 78	1 mg/mL	0.02% ammonia and 20% acetonitrile in water	pH 8
48 of 78	1 mg/mL	20% acetonitrile in water	pH 6
49 of 78	1 mg/mL	20% acetonitrile in water	pH 6
50 of 78	1 mg/mL	20% acetonitrile in water	pH 6
51 of 78	1 mg/mL	20% acetonitrile in water	pH 6
52 of 78	1 mg/mL	5% ammonium hydroxide in water	pH 11
53 of 78	1 mg/mL	0.02% ammonia and 30% acetonitrile in water	pH 8
54 of 78	1 mg/mL	20% acetonitrile in water	pH 6
55 of 78	1 mg/mL	20% acetonitrile in water	pH 6
56 of 78	1 mg/mL	20% acetonitrile in water	pH 6
57 of 78	1 mg/mL	20% acetonitrile in water	pH 6
58 of 78	1 mg/mL	20% acetonitrile in water	pH 6
59 of 78	1 mg/mL	20% acetonitrile in water	pH 6
60 of 78	1 mg/mL	10% acetonitrile in water	pH 6
61 of 78	1 mg/mL	20% acetonitrile in water	pH 6
62 of 78	1 mg/mL	20% acetonitrile in water	pH 6
63 of 78	1 mg/mL	20% acetonitrile in water	pH 6
64 of 78	1 mg/mL	20% acetonitrile in water	pH 6
65 of 78	1 mg/mL	0.02% ammonia and 20% acetonitrile in water	pH 8
66 of 78	1 mg/mL	0.02% ammonia and 30% acetonitrile in water	pH 8
67 of 78	1 mg/mL	0.02% ammonia and 20% acetonitrile in water	pH 8
68 of 78	1 mg/mL	20% acetonitrile in water	pH 6
69 of 78	1 mg/mL	20% acetonitrile in water	pH 6
70 of 78	1 mg/mL	40% acetonitrile in water	pH 6

Table 2			
Peptide	**Solubility**	**Solvent**	**Reconstitution pH, if required**
71 of 78	1 mg/mL	30% acetonitrile in water	pH 6
72 of 78	1 mg/mL	30% acetonitrile in water	pH 6
73 of 78	1 mg/mL	20% acetonitrile in water	pH 6
74 of 78	1 mg/mL	0.05% ammonia and 20% acetonitrile in water	pH 8
75 of 78	1 mg/mL	0.04% trifluoroacetic acid in water	pH 7
76 of 78	1 mg/mL	20% acetonitrile in water	pH 6
77 of 78	1 mg/mL	30% acetonitrile in water	pH 6
78 of 78	1 mg/mL	20% acetonitrile in water	pH 6

BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898