Peptide Array, Influenza Virus A/Wisconsin/67/2005 (H3N2) Neuraminidase Protein

Catalog No. NR-9475

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Contributor:
BEI Resources

Manufacturer:
New England Peptide, LLC

Product Description:
The 82-peptide array spans the neuraminidase protein of the A/Wisconsin/67/2005 (H3N2) strain of influenza virus (GenPept: ABP52004). Peptides are 12- to 18-mers, with 6 to 13 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). 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/Wisconsin/67/2005 (H3N2) Neuraminidase Protein, NR-9475."

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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Table 1		
Peptide	**Length**	**Sequence**
1 of 82	17	1 MNPNQKIITIGSVSLTI 17
2 of 82	17	7 IITIGSVSLTISTICFF 23
3 of 82	12	18 STICFFMQIAIL 29
4 of 82	17	19 TICFFMQIAILITTVTL 35
5 of 82	17	24 MQIAILITTVTLHFKQY 40
6 of 82	18	30 ITTVTLHFKQYEFNSPPN 47
7 of 82	16	37 FKQYEFNSPPNNQVML 52
8 of 82	17	42 FNSPPNNQVMLCEPTII 58
9 of 82	17	48 NQVMLCEPTIIERNITE 64
10 of 82	17	53 CEPTIIERNITEIVYLT 69
11 of 82	17	58 IERNITEIVYLTNTTIE 74
12 of 82	15	63 TEIVYLTNTTIEKEI 77
13 of 82	17	67 YLTNTTIEKEICPKLAE 83
14 of 82	17	73 IEKEICPKLAEYRNWSK 89
15 of 82	17	79 PKLAEYRNWSKPQCNIT 95
16 of 82	16	85 RNWSKPQCNITGFAPF 100
17 of 82	17	90 PQCNITGFAPFSKDNSI 106
18 of 82	17	96 GFAPFSKDNSIRLSAGG 112
19 of 82	17	102 KDNSIRLSAGGDIWVTR 118
20 of 82	15	108 LSAGGDIWVTREPYV 122
21 of 82	17	112 GDIWVTREPYVSCDPDK 128
22 of 82	17	118 REPYVSCDPDKCYQFAL 134
23 of 82	17	124 CDPDKCYQFALGQGTTL 140
24 of 82	17	130 YQFALGQGTTLNNVHSN 146
25 of 82	17	135 GQGTTLNNVHSNDTVHD 151
26 of 82	17	141 NNVHSNDTVHDRTPYRT 157
27 of 82	17	147 DTVHDRTPYRTLLMNEL 163
28 of 82	17	153 TPYRTLLMNELGVPFHL 169
29 of 82	16	159 LMNELGVPFHLGTKQV 174
30 of 82	15	164 GVPFHLGTKQVCIAW 178
31 of 82	17	168 HLGTKQVCIAWSSSSCH 184
32 of 82	17	174 VCIAWSSSSCHDGKAWL 190
33 of 82	17	180 SSSCHDGKAWLHVCVTG 196
34 of 82	17	186 GKAWLHVCVTGDDKNAT 202
35 of 82	17	192 VCVTGDDKNATASFIYN 208

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Table 1		
Peptide	**Length**	**Sequence**
36 of 82	16	198 DKNATASFIYNGRLVD 213
37 of 82	16	203 ASFIYNGRLVDSIVSW 218
38 of 82	17	208 NGRLVDSIVSWSKEILR 224
39 of 82	16	214 SIVSWSKEILRTQESE 229
40 of 82	17	219 SKEILRTQESECVCING 235
41 of 82	17	225 TQESECVCINGTCTVVM 241
42 of 82	16	231 VCINGTCTVVMTDGSA 246
43 of 82	17	236 TCTVVMTDGSASGKADT 252
44 of 82	17	242 TDGSASGKADTKILFIE 258
45 of 82	17	248 GKADTKILFIEEGKIVH 264
46 of 82	17	254 ILFIEEGKIVHTSTLSG 270
47 of 82	17	260 GKIVHTSTLSGSAQHVE 276
48 of 82	16	266 STLSGSAQHVEECSCY 281
49 of 82	17	271 SAQHVEECSCYPRYLGV 287
50 of 82	16	275 VEECSCYPRYLGVRCV 290
51 of 82	17	280 CYPRYLGVRCVCRDNWK 296
52 of 82	17	286 GVRCVCRDNWKGSNRPI 302
53 of 82	17	292 RDNWKGSNRPIVDINIK 308
54 of 82	16	298 SNRPIVDINIKDYSIV 313
55 of 82	15	303 VDINIKDYSIVSSYV 317
56 of 82	17	307 IKDYSIVSSYVCSGLVG 323
57 of 82	17	313 VSSYVCSGLVGDTPRKN 329
58 of 82	18	319 SGLVGDTPRKNDSSSSSH 336
59 of 82	17	326 PRKNDSSSSSHCLDPNN 342
60 of 82	17	332 SSSSHCLDPNNEEGGHG 348
61 of 82	17	338 LDPNNEEGGHGVKGWAF 354
62 of 82	17	342 NEEGGHGVKGWAFDDGN 358
63 of 82	17	348 GVKGWAFDDGNDVWMGR 364
64 of 82	17	354 FDDGNDVWMGRTISEKL 370
65 of 82	17	360 VWMGRTISEKLRSGYET 376
66 of 82	17	366 ISEKLRSGYETFKVIEG 382
67 of 82	16	372 SGYETFKVIEGWSNPN 387
68 of 82	17	377 FKVIEGWSNPNSKLQIN 393
69 of 82	17	383 WSNPNSKLQINRQVIVD 399
70 of 82	17	389 KLQINRQVIVDRGNRSG 405
71 of 82	17	394 RQVIVDRGNRSGYSGIF 410
72 of 82	16	400 RGNRSGYSGIFSVEGK 415
73 of 82	16	405 GYSGIFSVEGKSCINR 420
74 of 82	17	410 FSVEGKSCINRCFYVEL 426
75 of 82	17	416 SCINRCFYVELIRGRKE 432
76 of 82	17	422 FYVELIRGRKEETEVLW 438
77 of 82	17	428 RGRKEETEVLWTSNSIV 444
78 of 82	16	434 TEVLWTSNSIVVFCGT 449
79 of 82	17	439 TSNSIVVFCGTSGTYGT 455
80 of 82	17	445 VFCGTSGTYGTGSWPDG 461
81 of 82	17	451 GTYGTGSWPDGADINLM 467
82 of 82	13	457 SWPDGADINLMPI 469

Table 2		
Peptide	**Solubility**	**Solvent**
1 of 82	1 mg/mL	50% acetonitrile in water
2 of 82	1 mg/mL	DMSO
3 of 82	1 mg/mL	50% acetonitrile in water
4 of 82	1 mg/mL	50% acetonitrile in water
5 of 82	1 mg/mL	DMSO
6 of 82	1 mg/mL	50% acetonitrile in water
7 of 82	1 mg/mL	50% acetonitrile in water
8 of 82	1 mg/mL	50% acetonitrile in water
9 of 82	1 mg/mL	DMSO
10 of 82	1 mg/mL	50% acetonitrile in water
11 of 82	1 mg/mL	50% acetonitrile in water
12 of 82	1 mg/mL	50% acetonitrile in water
13 of 82	1 mg/mL	50% acetonitrile in water
14 of 82	1 mg/mL	50% acetonitrile in water
15 of 82	1 mg/mL	50% acetonitrile in water
16 of 82	1 mg/mL	50% acetonitrile in water
17 of 82	1 mg/mL	50% acetonitrile in water
18 of 82	1 mg/mL	50% acetonitrile in water
19 of 82	1 mg/mL	50% acetonitrile in water
20 of 82	1 mg/mL	50% acetonitrile in water
21 of 82	1 mg/mL	50% acetonitrile in water
22 of 82	1 mg/mL	50% acetonitrile in water
23 of 82	1 mg/mL	50% acetonitrile in water
24 of 82	1 mg/mL	50% acetonitrile in water
25 of 82	1 mg/mL	50% acetonitrile in water
26 of 82	1 mg/mL	50% acetonitrile in water
27 of 82	1 mg/mL	50% acetonitrile in water
28 of 82	1 mg/mL	50% acetonitrile in water
29 of 82	1 mg/mL	50% acetonitrile in water
30 of 82	1 mg/mL	50% acetonitrile in water
31 of 82	1 mg/mL	50% acetonitrile in water
32 of 82	1 mg/mL	50% acetonitrile in water
33 of 82	1 mg/mL	50% acetonitrile in water
34 of 82	1 mg/mL	50% acetonitrile in water
35 of 82	1 mg/mL	50% acetonitrile in water
36 of 82	1 mg/mL	50% acetonitrile in water
37 of 82	1 mg/mL	50% acetonitrile in water
38 of 82	1 mg/mL	50% acetonitrile in water
39 of 82	1 mg/mL	50% acetonitrile in water
40 of 82	1 mg/mL	DMSO
41 of 82	1 mg/mL	50% acetonitrile in water
42 of 82	1 mg/mL	50% acetonitrile in water
43 of 82	1 mg/mL	50% acetonitrile in water
44 of 82	1 mg/mL	50% acetonitrile in water

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Table 2		
Peptide	**Solubility**	**Solvent**
45 of 82	1 mg/mL	50% acetonitrile in water
46 of 82	1 mg/mL	DMSO
47 of 82	1 mg/mL	50% acetonitrile in water
48 of 82	1 mg/mL	50% acetonitrile in water
49 of 82	1 mg/mL	50% acetonitrile in water
50 of 82	1 mg/mL	50% acetonitrile in water
51 of 82	1 mg/mL	50% acetonitrile in water
52 of 82	1 mg/mL	50% acetonitrile in water
53 of 82	1 mg/mL	50% acetonitrile in water
54 of 82	1 mg/mL	DMSO
55 of 82	1 mg/mL	75% acetonitrile in water
56 of 82	1 mg/mL	50% acetonitrile in water
57 of 82	1 mg/mL	50% acetonitrile in water
58 of 82	1 mg/mL	50% acetonitrile in water
59 of 82	1 mg/mL	50% acetonitrile in water
60 of 82	1 mg/mL	50% acetonitrile in water
61 of 82	1 mg/mL	50% acetonitrile in water
62 of 82	1 mg/mL	50% acetonitrile in water
63 of 82	1 mg/mL	50% acetonitrile in water
64 of 82	1 mg/mL	50% acetonitrile in water
65 of 82	1 mg/mL	50% acetonitrile in water
66 of 82	1 mg/mL	50% acetonitrile in water
67 of 82	1 mg/mL	50% acetonitrile in water
68 of 82	1 mg/mL	50% acetonitrile in water
69 of 82	1 mg/mL	DMSO
70 of 82	1 mg/mL	50% acetonitrile in water
71 of 82	1 mg/mL	50% acetonitrile in water
72 of 82	1 mg/mL	50% acetonitrile in water
73 of 82	1 mg/mL	50% acetonitrile in water
74 of 82	1 mg/mL	50% acetonitrile in water
75 of 82	1 mg/mL	50% acetonitrile in water
76 of 82	1 mg/mL	50% acetonitrile in water
77 of 82	1 mg/mL	75% acetonitrile in water
78 of 82	1 mg/mL	50% acetonitrile in water
79 of 82	1 mg/mL	50% acetonitrile in water
80 of 82	1 mg/mL	50% acetonitrile in water
81 of 82	1 mg/mL	50% acetonitrile in water
82 of 82	1 mg/mL	50% acetonitrile in water