Peptide Array, Influenza Virus B/Florida/4/2006 Matrix Protein 1

Catalog No. NR-36046

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Contributor:
BEI Resources

Manufacturer:
New England Peptide, LLC.

Product Description:
The 47-peptide array spans the matrix protein 1 (M1) of the B/Florida/4/2006 strain of influenza virus (GenPept: ACF54247).[1] Peptides are 16- to 17-mers, with 10 to 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 B/Florida/4/2006 Matrix Protein 1, NR-36046."

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-36046

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References:

1. Spiro, D., et al. "The NIAID Influenza Genome Sequencing Project." Unpublished. GenPept: ACF54247.

Support Provided by NIAID

Table 1

Peptide	Length	Sequence
01 of 47	17	1-MSLFGDTIAYLLSLTED-17
02 of 47	17	6-DTIAYLLSLTEDGEGKA-22
03 of 47	17	11-LLSLTEDGEGKAELAEK-27
04 of 47	17	16-EDGEGKAELAEKLHCWF-32
05 of 47	17	21-KAELAEKLHCWFGGKEF-37
06 of 47	17	26-EKLHCWFGGKEFDLDSA-42
07 of 47	17	31-WFGGKEFDLDSALEWIK-47
08 of 47	17	36-EFDLDSALEWIKNKRCL-52
09 of 47	17	41-SALEWIKNKRCLTDIQK-57
10 of 47	17	46-IKNKRCLTDIQKALIGA-62
11 of 47	17	51-CLTDIQKALIGASICFL-67
12 of 47	16	57-KALIGASICFLKPKDQ-72
13 of 47	17	61-GASICFLKPKDQERKRR-77
14 of 47	17	66-FLKPKDQERKRRFITEP-82
15 of 47	17	71-DQERKRRFITEPLSGMG-87
16 of 47	17	76-RRFITEPLSGMGTTATK-92
17 of 47	17	81-EPLSGMGTTATKKKGLI-97
18 of 47	17	86-MGTTATKKKGLILAERK-102
19 of 47	17	91-TKKKGLILAERKMRRCV-107
20 of 47	17	96-LILAERKMRRCVSFHEA-112
21 of 47	17	101-RKMRRCVSFHEAFEIAE-117
22 of 47	17	106-CVSFHEAFEIAEGHESS-122
23 of 47	17	111-EAFEIAEGHESSALLYC-127
24 of 47	17	116-AEGHESSALLYCLMVMY-132
25 of 47	17	121-SSALLYCLMVMYLNPGN-137
26 of 47	17	126-YCLMVMYLNPGNYSMQV-142
27 of 47	17	131-MYLNPGNYSMQVKLGTL-147
28 of 47	17	136-GNYSMQVKLGTLCALCE-152
29 of 47	16	142-VKLGTLCALCEKQASH-157
30 of 47	17	146-TLCALCEKQASHSHRAH-162
31 of 47	17	151-CEKQASHSHRAHSRAAR-167
32 of 47	17	156-SHSHRAHSRAARSSVPG-172
33 of 47	17	161-AHSRAARSSVPGVRREM-177
34 of 47	17	166-ARSSVPGVRREMQMVSA-182

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Table 1		
Peptide	**Length**	**Sequence**
35 of 47	17	171-PGVRREMQMVSAMNTAK-187
36 of 47	17	176-EMQMVSAMNTAKTMNGM-192
37 of 47	17	181-SAMNTAKTMNGMGKGED-197
38 of 47	17	186-AKTMNGMGKGEDVQKLA-202
39 of 47	17	191-GMGKGEDVQKLAEELQS-207
40 of 47	17	196-EDVQKLAEELQSNIGVL-212
41 of 47	17	201-LAEELQSNIGVLRSLGA-217
42 of 47	16	207-SNIGVLRSLGASQKNG-222
43 of 47	17	211-VLRSLGASQKNGEGIAK-227
44 of 47	17	216-GASQKNGEGIAKDVMEV-232
45 of 47	17	221-NGEGIAKDVMEVLKQSS-237
46 of 47	17	226-AKDVMEVLKQSSMGNSA-242
47 of 47	16	233-LKQSSMGNSALVKKYL-248

Table 2		
Peptide	**Solubility**	**Solvent**
01 of 47	5mg/mL	Acetic acid, acetonitrile and water
02 of 47	5mg/mL	Water
03 of 47	5mg/mL	Water
04 of 47	5mg/mL	Water
05 of 47	5mg/mL	Water
06 of 47	5mg/mL	Water
07 of 47	5mg/mL	Water
08 of 47	5mg/mL	Water
09 of 47	5mg/mL	Water
10 of 47	5mg/mL	Water
11 of 47	5mg/mL	DMSO
12 of 47	5mg/mL	Water
13 of 47	5mg/mL	Water
14 of 47	5mg/mL	Water
15 of 47	5mg/mL	Water
16 of 47	5mg/mL	Water
17 of 47	5mg/mL	Water
18 of 47	5mg/mL	Water
19 of 47	5mg/mL	Water
20 of 47	5mg/mL	Water
21 of 47	5mg/mL	Water
22 of 47	5mg/mL	Water

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Table 2		
Peptide	**Solubility**	**Solvent**
23 of 47	5mg/mL	Water
24 of 47	5mg/mL	DMSO
25 of 47	5mg/mL	0.5 mL TFA and 1 mL acetonitrile
26 of 47	5mg/mL	DMSO
27 of 47	5mg/mL	Acetonitrile in water
28 of 47	5mg/mL	DMSO
29 of 47	5mg/mL	Water
30 of 47	5mg/mL	Water
31 of 47	5mg/mL	Water
32 of 47	5mg/mL	Water
33 of 47	5mg/mL	Water
34 of 47	5mg/mL	Water
35 of 47	5mg/mL	Water
36 of 47	5mg/mL	Water
37 of 47	5mg/mL	Water
38 of 47	5mg/mL	Water
39 of 47	5mg/mL	Water
40 of 47	5mg/mL	DMSO
41 of 47	5mg/mL	Acetonitrile in water
42 of 47	5mg/mL	Water
43 of 47	5mg/mL	Water
44 of 47	5mg/mL	Water
45 of 47	5mg/mL	Water
46 of 47	5mg/mL	Water
47 of 47	5mg/mL	Water

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