# Peptide Array, Influenza Virus A/New York/348/2003 (H1N1) Matrix Protein 2

## Catalog No. NR-2614

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## For research use only. Not for human use.

**Contributor:**
BEI Resources

**Manufacturer:**
Bio-Synthesis, Inc.

**Product Description:**
The 15-peptide array spans the matrix protein 2 (M2) of the A/New York/348/2003 (H1N1) strain of influenza virus (GenPept: ABA12731).[1] Peptides are 14- to 17-mers, with 11 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) Matrix Protein 2, NR-2614."

**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:**
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# Product Information Sheet for NR-2614

## Use Restrictions:

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## References:

1. Ghedin, E., et al. "The NIAID Influenza Genome Sequencing Project." Direct submission (2005). GenPept: ABA12731.



Support Provided by NIAID

| Table 1 | | |
|---|---|---|
| **Peptide** | **Length** | **Sequence** |
| 1 of 15 | 16 | 1 MSLLTEVETPIRNEWG 16 |
| 2 of 15 | 17 | 6 EVETPIRNEWGCRCNDS 22 |
| 3 of 15 | 17 | 12 RNEWGCRCNDSSDPLVV 28 |
| 4 of 15 | 17 | 18 RCNDSSDPLVVAASIIG 34 |
| 5 of 15 | 17 | 24 DPLVVAASIIGIVHLIL 40 |
| 6 of 15 | 17 | 30 ASIIGIVHLILWIIDRL 46 |
| 7 of 15 | 17 | 36 VHLILWIIDRLFSKSIY 52 |
| 8 of 15 | 17 | 42 IIDRLFSKSIYRIFKHG 58 |
| 9 of 15 | 17 | 48 SKSIYRIFKHGLKRGPS 64 |
| 10 of 15 | 17 | 54 IFKHGLKRGPSTEGVPE 70 |
| 11 of 15 | 17 | 60 KRGPSTEGVPESMREEY 76 |
| 12 of 15 | 17 | 66 EGVPESMREEYREEQQN 82 |
| 13 of 15 | 17 | 72 MREEYREEQQNAVDADD 88 |
| 14 of 15 | 17 | 78 EEQQNAVDADDGHFVSI 94 |
| 15 of 15 | 14 | 84 VDADDGHFVSIELE 97 |

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| Table 2 | | |
|---|---|---|
| **Peptide** | **Solubility** | **Solvent** |
| 1 of 15 | 1 mg/mL | 100% DMSO |
| 2 of 15 | 1 mg/mL | 6 M guanidine-HCl |
| 3 of 15 | 1 mg/mL | 100% DMSO |
| 4 of 15 | 1 mg/mL | 100% DMSO |
| 5 of 15 | 1 mg/mL | 70% acetonitrile in water |
| 6 of 15 | 1 mg/mL | 100% DMSO |
| 7 of 15 | 1 mg/mL | 100% DMSO |
| 8 of 15 | 1 mg/mL | 70% acetonitrile in water |
| 9 of 15 | 1 mg/mL | 6 M guanidine-HCl |
| 10 of 15 | 1 mg/mL | 6 M guanidine-HCl |
| 11 of 15 | 1 mg/mL | 70% acetonitrile in water |
| 12 of 15 | 1 mg/mL | 100% DMSO |
| 13 of 15 | 1 mg/mL | 100% DMSO |
| 14 of 15 | 1 mg/mL | 100% DMSO |
| 15 of 15 | 1 mg/mL | 70% acetonitrile in water |