

**Peptide Array, Influenza Virus A/California/7/2004 (H3N2) (egg-passaged) Hemagglutinin Protein Diverse Peptides**

**Catalog No. NR-9473**

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**Contributor:**

BEI Resources

**Product Description:**

NR-9473 contains 13 peptides that represent regions of amino acid sequence diversity in the hemagglutinin (HA) protein of egg-passaged influenza virus A/California/7/2004 (H3N2) (GenPept: ABO37490) compared to the HA of influenza virus A/Wisconsin/67e5/2005 (H3N2) (GenPept: ABO37599). Peptides are 15- to 17-mers, with 11 or 12 amino acid overlaps. Please see Table 1 for length and sequence of individual peptides.

**Note:** The GenPept sequence data for the HA protein of influenza virus A/California/7/2004 (H3N2) (GenPept: ABO37490) covers amino acids 17 to 528. The GenPept sequence data for the HA protein of influenza virus A/Wisconsin/67e5/2005 (H3N2) (GenPept: ABO37599) covers amino acids 17 to 566.

The HA of egg-passaged influenza virus A/California/7/2004 (H3N2) is identical to that of the HA of A/Wisconsin/67e5/2005 (H3N2) from amino acid 17 to 528 with the exception of 8 amino acids. A peptide array covering amino acids 17 to 528 of the HA protein of egg-passaged A/California/7/2004 (H3N2) can be constructed using these 13 peptides and peptides from A/Wisconsin/67e5/2005 (H3N2) (BEI Resources NR-9472).

**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 -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/California/7/2004 (H3N2) (egg-passaged) Hemagglutinin Protein Diverse Peptides, NR-9473.”

**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](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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Peptide	Length	Sequence
20 of 94	16	109 LRSLVASSGTLEFNNE 124
21 of 94	17	114 ASSGTLEFNNEFNWTG 130
22 of 94	17	119 LEFNNEFNWTGVTQNG 135
23 of 94	17	125 SFNWTGVTQNGTSSSCK 141
24 of 94	16	131 VTQNGTSSSCKRRSNN 146
25 of 94	17	136 TSSSCKRRSNNFFSRL 152
32 of 94	17	177 KLYIWGVHHPGTNNDQI 193
33 of 94	17	183 VHHPGTNNDQISLYTQA 199
34 of 94	17	189 NNDQISLYTQASGRITV 205
35 of 94	17	195 LYTQASGRITVSTKRSQ 211
38 of 94	15	213 TVIPNIGSRPRVRDI 227
39 of 94	17	217 NIGSRPRVRDIPSRISI 233
40 of 94	17	223 RVRDIPSRISIIYWTIVK 239

Peptide	Solubility	Solvent
20 of 94	1 mg/mL	50% acetonitrile in water
21 of 94	1 mg/mL	DMSO
22 of 94	1 mg/mL	DMSO
23 of 94	1 mg/mL	50% acetonitrile in water
24 of 94	1 mg/mL	50% acetonitrile in water
25 of 94	1 mg/mL	50% acetonitrile in water
32 of 94	1 mg/mL	50% acetonitrile in water
33 of 94	1 mg/mL	50% acetonitrile in water
34 of 94	1 mg/mL	75% acetonitrile in water
35 of 94	1 mg/mL	50% acetonitrile in water
38 of 94	1 mg/mL	50% acetonitrile in water
39 of 94	1 mg/mL	50% acetonitrile in water
40 of 94	1 mg/mL	50% acetonitrile in water