

Influenza Virus B/Hong Kong/330/2001 Nucleoprotein Diverse Peptide

Catalog No. NR-36049

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Contributor:

BEI Resources

Manufacturer:

New England Peptide, LLC.

Product Description:

NR-36049 is a peptide that represents one region of amino acid sequence diversity in the nucleoprotein (NP) of influenza virus B/Hong Kong/330/2001 (GenPept: AAT69437)¹ compared to the NP of influenza virus B/Florida/4/2006 (GenPept: ACF54251; peptide array available as BEI Resources NR-36045). It also represents a sequence within influenza virus B/Hong Kong/330/2001 that could be recognized by CD4 T cells. BEI Resources NR-36047 through NR-36050 form a set of overlapping peptides:

Peptide	Length	Sequence
NR-36047	17	6-IDGINTGTIDKAPEETN-22
NR-36048	17	11-TGTIDKAPEETNSGTSG-27
NR-36049	17	16-KAPEETNSGTSGTTRPI-32
NR-36050	17	21-TNSGTSGTTRPIIRPAT-37

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 1). 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 1). 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: Influenza Virus B/Hong Kong/330/2001 Nucleoprotein Diverse Peptide, NR-36049.”

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/bmb15/index.htm.

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References:

1. Lugovtsev, V. Y., G. M. Vodeiko and R. A. Levandowski. "Mutational Pattern of Influenza B Viruses Adapted to High Growth Replication in Embryonated Eggs." Virus Res. 109 (2005): 149-157. PubMed: 15763145. GenPept: AAT69437.

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Table 1		
Peptide	Solubility	Solvent
NR-36047	5mg/mL	Water
NR-36048	5mg/mL	Water
NR-36049	5mg/mL	Water
NR-36050	5mg/mL	Water