N8 Neuraminidase (NA) Protein with N-Terminal Histidine Tag from Influenza Virus, A/chicken/Netherlands/14015531/ 2014 (H5N8), Recombinant from Baculovirus

Catalog No. NR-50111

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

A recombinant form of the N8 Neuraminidase (NA) protein from influenza A virus, A/chicken/Netherlands/14015531/ 2014 (H5N8)[1] containing an N-terminal histidine tag was produced in Sf9 insect cells using a baculovirus expression vector system and was purified by nickel affinity chromatography. The predicted ectodomain coding region of the NA gene was fused to a synthetic gene segment encoding an N-terminal six histidine tag followed by a tetramerization domain from vasodilator-stimulated phosphoprotein (VASP) and a thrombin cleavage site.[2,3] The full-length NA precursor protein is 470 residues (GISAID EpiFlu: EPI548626).

Material Provided:

Each vial contains 50 µg to 150 µg of purified recombinant NA protein in PBS (pH 7.4) with 50% glycerol. The protein content in µg and the concentration, expressed as µg/mL, are shown on the Certificate of Analysis.

Packaging/Storage:

Purified recombinant NA protein was packaged aseptically, in screw-capped plastic cryovials. This product is provided on ice bricks and should be stored at -20°C immediately upon arrival.

Functional Activity:

NR-50111 was demonstrated to be functionally active based on its ability to cleave the fluorogenic substrate 2'-(4-methylumbelliferyl)-α-D-N-acetylneuraminic acid (4-MUNANA).[4]

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: N8 Neuraminidase (NA) Protein with N-Terminal Histidine Tag from Influenza Virus, A/chicken/Netherlands/14015531/ 2014 (H5N8), Recombinant from Baculovirus, NR-50111."

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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References:

1. de Vries, E., et al. "Rapid Emergence of Highly Pathogenic Avian Influenza Subtypes from a Subtype H5N1 Hemagglutinin Variant." Emerg. Infect. Dis. 21(2015): 842-846. PubMed: 25897518.
2. Kühnel, K., et al. "The VASP Tetramerization Domain is a Right-Handed Coiled Coil Based on a 15-Residue

Repeat." Proc. Natl. Acad. Sci. USA 101 (2004): 17027-17032. PubMed: 15569942.

3. Margine, I., P. Palese, and F. Krammer. "Expression of Functional Recombinant Hemagglutinin and Neuraminidase Proteins from the Novel H7N9 Influenza Virus Using the Baculovirus Expression System." J. Vis. Exp. 6 (2013): e51112. PubMed: 24300384.
4. Wetherall, N. T., et al. "Evaluation of Neuraminidase Enzyme Assays Using Different Substrates to Measure Susceptibility of Influenza Virus Clinical Isolates to Neuraminidase Inhibitors: Report of the Neuraminidase Inhibitor Susceptibility Network." J. Clin. Microbiol. 41 (2003): 742-750. PubMed: 12574276.

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