N2 Neuraminidase (NA) Protein with N-terminal Histidine Tag from Influenza Virus, A/Brisbane/10/2007 (H3N2), Recombinant from Baculovirus

Catalog No. NR-43784
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Contributor and Manufacturer:
BEI Resources

Product Description:
A recombinant form of the N2 neuraminidase (NA) protein from influenza A virus, A/Brisbane/10/2007 (H3N2) containing an N-terminal histidine tag was produced in Sf9 insect cells using a baculovirus expression vector system and 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 eight-histidine tag followed by a 43 amino acid tetramerization domain from vasodilator-stimulated phosphoprotein (VASP)¹ and a thrombin cleavage site, as described for the 1918 pandemic virus.² The predicted protein sequence is shown in Table 1. The full-length NA precursor protein is 469 residues (GenPept: AFN11835).

Material Provided:
Each vial contains approximately 200 μg of purified recombinant NA protein in D-PBS (pH 7.4). The concentration, expressed as μg per mL, is 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 blue ice and should be stored at -20°C immediately upon arrival.

Functional Activity:
NR-43784 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).³

Citation:
Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: N2 Neuraminidase (NA) Protein with N-terminal Histidine Tag from Influenza Virus, A/Brisbane/10/2007 (H3N2), Recombinant from Baculovirus, NR-43784.”

Biosafety Level: 1

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References:

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Table 1 – Predicted Protein Sequence

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Plasmid-derived amino acids – Residues 1 to 3 and 61 to 66
His Tag – Residues 4 to 11
Tetramerization domain – Residues 12 to 54
Thrombin cleavage sequence – Residues 55 to 60
NA protein – Residues 67 to 460 (represents amino acid residues 76 to 469 of the A/Brisbane/10/2007 (H3N2) NA protein)