N2 Neuraminidase (NA) Protein with N-Terminal Histidine Tag from Influenza Virus, A/Wisconsin/67/2005 (H3N2), Recombinant from Baculovirus

Catalog No. NR-19237
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Contributor and Manufacturer:
BEI Resources

Product Description:
The N2 neuraminidase (NA) protein from influenza A virus, A/Wisconsin/67/2005 (H3N2) containing an N-terminal histidine tag was produced in Sf9 (Invitrogen™ 11496-015) 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 eight-histidine tag followed by a 43 amino acid tetramerization domain from vasodilator-stimulated phosphoprotein (VASP) and a thrombin cleavage site, as described for the 1918 pandemic virus. The predicted protein sequence is shown in Table 1. The full-length N2 NA precursor protein is 469 residues (GenPept: AB8W0983).

Material Provided:
Each vial contains approximately 150 to 250 µg of purified recombinant NA protein in phosphate buffered saline, pH 7.4 (PBS). 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 frozen and should be stored at -20°C or colder immediately upon arrival. For long-term storage, freezing at -80°C or colder is recommended. Multiple freeze-thaw cycles should be avoided.

Functional Activity:
NR-19237 was demonstrated to be functionally active based on its ability to cleave the fluorogenic substrate 2-

\[(4-\text{methylumbelliferyl})-\alpha,\beta-N\text{-acetyleuraminic acid (4-MUNANA).}^3\]

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/Wisconsin/67/2005 (H3N2), Recombinant from Baculovirus, NR-19237.”

Biosafety Level: 1

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References:


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Table 1 – Predicted Protein Sequence

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<th>Plasmid-derived amino acids – Residues 1 to 3 and 61 to 66</th>
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<tr>
<td>1</td>
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<td>451</td>
<td>DGADINALMPI</td>
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</table>

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*

*This represents amino acid residues 76 to 469 of the A/Wisconsin/67/2005 (H3N2) NA protein.