

Neuraminidase (NA) Protein with N-Terminal Histidine Tag from Influenza Virus, B/Hong Kong/330/2001 (Victoria Lineage), Recombinant from Baculovirus

Catalog No. NR-43781

This reagent is the tangible property of the U.S. Government.

Product Description:

NR-43781 is a recombinant form of the neuraminidase (NA) protein from influenza B virus, B/Hong Kong/330/2001 (Victoria Lineage) containing a N-terminal histidine tag. NR-43781 was produced in Sf9 insect cells using a baculovirus expression vector system and purified using 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.

Lot: 70057361

Manufacturing Date: 09MAY2023

TEST	SPECIFICATIONS	RESULTS
Appearance	Clear and colorless	Clear and colorless
SDS-PAGE Analysis	Protein band of interest represents > 90% of total staining intensity	Dominant band of 50-60 kDa represents ~ 90% of total staining intensity (Figure 1)
Concentration by Bradford Assay Bovine Serum Albumin (BSA; standard)	Report results	0.15 mg/mL
Vial Content Amount per vial Volume per vial	Report results Report results	50 µg 333 µL
Functional Activity Neuraminidase activity in a fluorescent enzymatic assay ¹	Report results	2.26 x 10 ¹⁰ relative fluorescence units/hour/mg protein
Identification by Western Blot Analysis Polyclonal anti-NA ² Monoclonal anti-histidine tag ³	Reactive Reactive	Reactive (Figure 2) Reactive (Figure 3)
Endotoxin Content (Limulus Amebocyte Lysate Assay)	Report results	< 39.46 EU/mg
Filtration	0.2 µm sterile-filtered	0.2 µm sterile-filtered

¹Using serial dilutions of NR-43781 and 2'-(4-methylumbelliferyl)-α-D-N-acetylneuraminic acid (4-MUNANA), as described in 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.

²Using a 1:2000 dilution of polyclonal Anti-Influenza Virus Neuraminidase (NA), B/Hong Kong/8/1973, (BEI Resources NR-3147) as primary antibody and a 1:2000 dilution of HRP-conjugated anti-goat IgG (R&D Systems HAF109) as secondary antibody.

³Using a 1:2000 dilution of 6xHis Monoclonal Antibody (Takara Bio USA 631212) as primary antibody and a 1:2000 dilution of HRP-conjugated anti-mouse IgG (R&D Systems HAF007) as secondary antibody.

Figure 1: SDS-PAGE Analysis

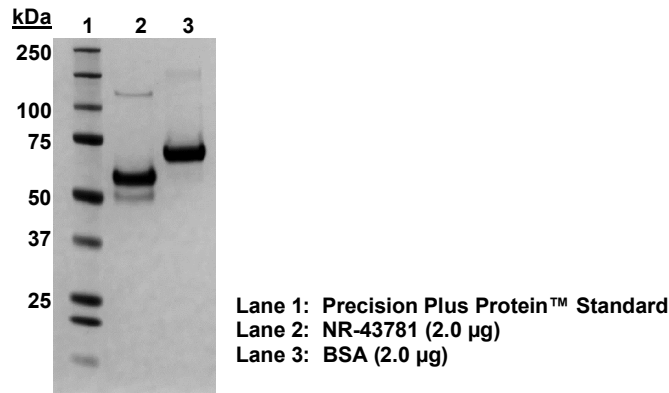


Figure 2: Anti-NA Western Blot

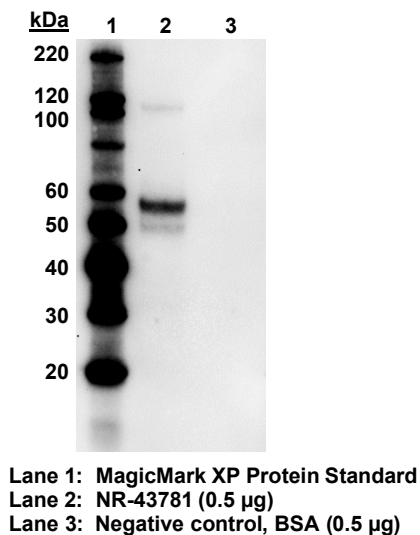
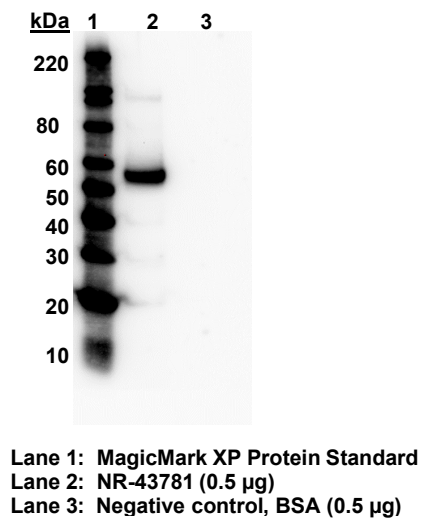


Figure 3: Anti-Histidine Tag Western Blot



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