

N9 Neuraminidase (NA) Protein from Influenza Virus, A/Shanghai/1/2013 (H7N9), Recombinant from Baculovirus

Catalog No. NR-44080

Product Description:

A recombinant form of the N9 neuraminidase (NA) protein from influenza A virus, A/Shanghai/1/2013 (H7N9) was produced in Sf9 insect cells using a baculovirus expression vector system. 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. The protein was purified by nickel and benzamidine affinity chromatography and then treated with thrombin to remove the tetramerization domain and the histidine tag. The thrombin-treated protein was further purified prior to final formulation.

Lot: 70051970

Manufacturing Date: 18NOV2022

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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 kDa represents > 93% of total staining intensity (Figure 1)
Identification by Western Blot Analysis Polyclonal anti-N9 NA ¹ Monoclonal anti-histidine tag ²	Reactive Reactive	Reactive (Figure 2A) Not reactive (Figure 2B)
Concentration by Bradford Assay Bovine Serum Albumin (standard)	Report results	63 µg/mL
Final Product Amount per vial Volume per vial	Report results Report results	26 µg 420 µL
Functional Activity Neuraminidase activity in fluorescent enzymatic assay ³	Report results	1.5 × 10 ⁹ relative fluorescent units/hour/mg protein
Endotoxin Content (Limulus Amebocyte Lysate Assay)	Report results	< 79.40 EU/mg
Filtration	0.2 µm sterile-filtered	0.2 µm sterile-filtered

¹Using a 1:2000 dilution of goat polyclonal anti-N9 NA (BEI Resources NR-667) as primary antibody and a 1:1000 dilution of HRP-conjugated donkey anti-goat IgG (R&D Systems HAF109) as secondary antibody

²Using a 1:2000 dilution of mouse monoclonal anti-histidine tag (R&D Systems MAB050) as primary antibody and a 1:1000 dilution of HRP-conjugated goat anti-mouse IgG (R&D Systems HAF007) as secondary antibody

³Using serial dilutions of NR-44080 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.

Figure 1: SDS-PAGE Analysis

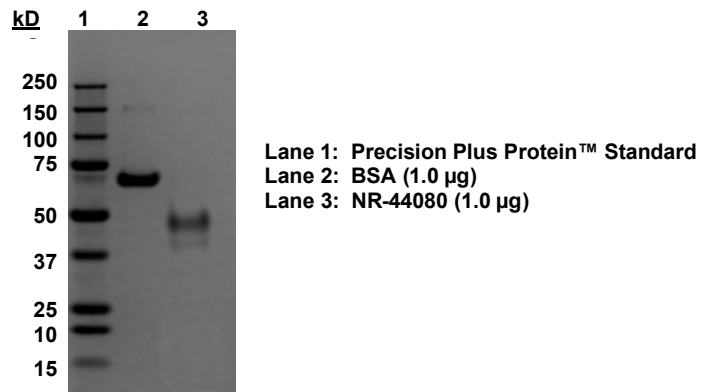
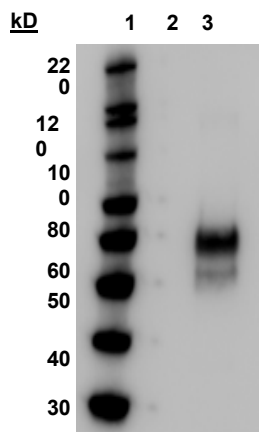


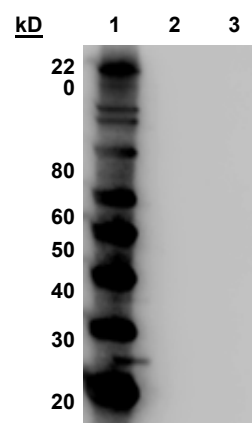
Figure 2: Western Blot Analysis

A: Polyclonal Anti-N9 NA



Lane 1: MagicMark™ XP Protein Standard
Lane 2: BSA (0.5 µg)
Lane 3: NR-44080 (0.5 µg)

B: Monoclonal Anti-Histidine Tag



Lane 1: MagicMark™ XP Protein Standard
Lane 2: BSA (0.5 µg)
Lane 3: NR-44080 (0.5 µg)

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02 MAR 2023

Technical Manager or designee, ATCC Federal Solutions

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