

N1 Neuraminidase (NA) Protein with N-Terminal Histidine Tag from Influenza Virus, A/New Caledonia/20/1999 (H1N1), Recombinant from Baculovirus

Catalog No. NR-43779

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

Product Description: A recombinant form of the N1 neuraminidase (NA) protein from influenza A virus A/New Caledonia/20/1999 (H1N1) containing an N-terminal histidine tag was produced in Sf9 insect cells using a baculovirus expression vector system and purified by nickel affinity chromatography.

Lot: 62055443

Manufacturing Date: 14OCT2013

TEST	SPECIFICATIONS	RESULTS
Appearance	Clear and colorless	Clear and colorless
Purity by SDS-PAGE Densitometry Scan	Protein band of interest represents $\geq 95\%$ of total staining intensity	Protein band of ~ 55 kDa accounts for ~ 95% of total staining intensity (Figure 1)
Identification by Western Blot Analysis Polyclonal anti-N1 NA ¹ Ferret hyperimmune sera ² Monoclonal anti-histidine tag ³	Reactive Reactive Reactive	Reactive (Figure 2A) Reactive (Figure 2B) Reactive (Figure 2C)
Concentration by Bradford Assay⁴	Report results	360 $\mu\text{g/mL}$
Final Product Quantity per vial Volume per vial	Report results Report results	108 μg 300 μL
Functional Activity Neuraminidase activity in fluorescent enzymatic assay	Report results	4.3×10^6 relative fluorescence units per hour per mg protein ⁵
Filtration	0.2 μm filtered	0.2 μm filtered

¹BEI Resources NR-3136, Polyclonal Anti-Influenza Virus N1 Neuraminidase (NA), A/New Jersey/8/76 (H1N1), (antiserum, Goat) (1:1000 dilution)

²BEI Resources NR-19263, Ferret Hyperimmune Sera to Influenza A/New Caledonia/20/1999 (H1N1) (1:1000 dilution)

³R&D Systems (Cat. No. MAB050) (IgG1) (1:1000 dilution)

⁴Using BSA as a standard

⁵Using serial dilutions of NR-43779 and 0.15 mM 2'-(4-methylumbelliferyl)- α -D-N-acetylneuraminic acid (4-MUNANA), Sigma (Cat. No. M8639), 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.

Date: 21 NOV 2013

Signature: 

Title: Technical Manager, BEI Authentication or designee

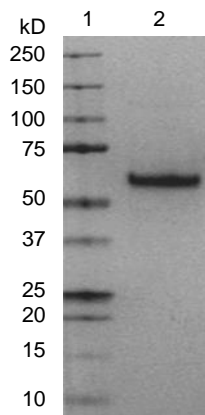
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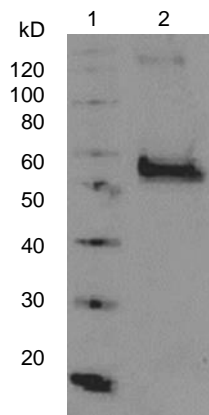
Figure 1: SDS-PAGE



Lane 1: Precision Plus™ Protein Standard
Lane 2: NR-43779, 1 µg

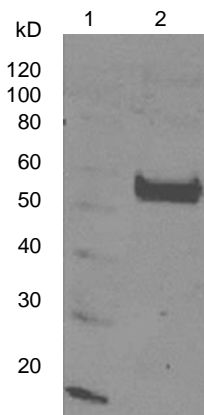
Figure 2: Western Blot Analysis

A. Polyclonal Anti-N1 NA



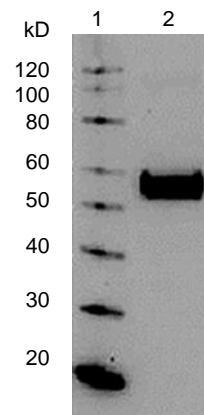
Lane 1: MagicMark™ XP Protein Standard
Lane 2: NR-43779, 1 µg

B. Ferret Hyperimmune Sera



Lane 1: MagicMark™ XP Protein Standard
Lane 2: NR-43779, 1 µg

C. Monoclonal Anti-Histidine Tag



Lane 1: MagicMark™ XP Protein Standard
Lane 2: NR-43779, 1 µg