

**N1 Neuraminidase (NA) Protein with N-Terminal Histidine Tag from Influenza Virus, A/Puerto Rico/8/1934 (H1N1), Recombinant from Baculovirus**

**Catalog No. NR-42002**

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/Puerto Rico/8/1934 (H1N1) containing an N-terminal histidine tag was produced in High Five™ insect cells using a baculovirus expression vector system and partially purified by nickel affinity chromatography, and vialled in 25 mM phosphate buffer (pH 8.0) with 250 mM NaCl, 250 mM imidazole, and 50% glycerol.

**Lot: 61759226**

**Manufacturing Date: 17JUN2013**

TEST	SPECIFICATIONS	RESULTS
<b>Appearance</b>	Clear and colorless	Clear and colorless
<b>SDS-PAGE Analysis</b>	Protein band of interest represents > 90% of total staining intensity	The dominant band of ~ 50 kDa accounts for ~ 50% of total staining intensity (Figure 1)
<b>Concentration by Bicinchoninic Acid Protein Assay<sup>1</sup></b>	Report results	5.84 µg/mL
<b>Vial Contents</b> Quantity per vial Volume per vial	Report results Report results	1.75 µg 300 µL
<b>Identification by Western Blot</b> Monoclonal anti-histidine tag <sup>2</sup> Polyclonal anti-N1 NA <sup>3</sup>	Reactive Reactive	Reactive (Figure 2A) Reactive (Figure 2B)
<b>Functional Activity</b> Neuraminidase activity in a fluorescent enzymatic assay <sup>4</sup>	Report results	~120 relative fluorescence units/hour/µg protein
<b>Filtration</b>	0.45 µm filter-sterilized	0.45 µm filter-sterilized

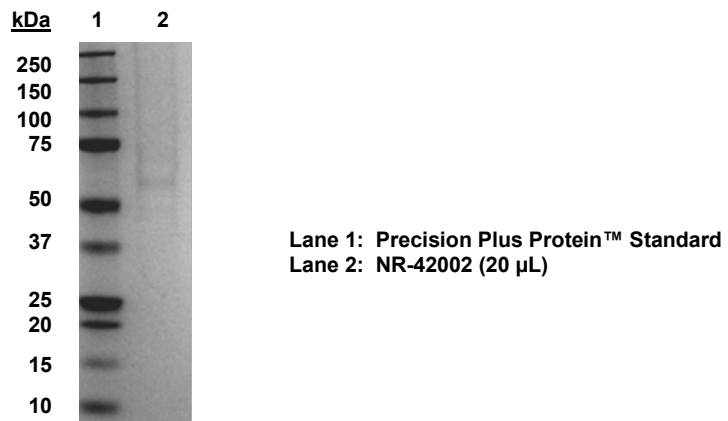
<sup>1</sup>Pierce Protein Research Products (Catalog. No. 23235)

<sup>2</sup>R&D Systems (Catalog. No. MAB050) (IgG1) (1:1000 dilution)

<sup>3</sup>BEI Resources NR-3136, Polyclonal Anti-Influenza Virus N1 Neuraminidase (NA), A/New Jersey/8/1976 (H1N1), (antiserum, Goat) (1:1000 dilution)

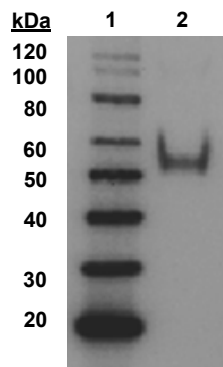
<sup>4</sup>Using serial dilutions of NR-42002 and 0.15 mM 2'-(4-methylumbelliferyl)-α-D-N-acetylneuraminic acid (4-MUNANA), Sigma (Cat. No. M8639), as described in Wetherall, N.T., et al. "Evaluation of Neuraminidase Enzyme Assays Using Different Substrates to Measure Susceptibility of Influenza Virus Clinical Isolates to Neuraminidase Inhibitors: Report of the Neuraminidase Inhibitor Susceptibility Network." *J. Clin. Microbiol.* 41 (2003): 742-750. PubMed: 12574276.

**Figure 1: SDS-PAGE Analysis**



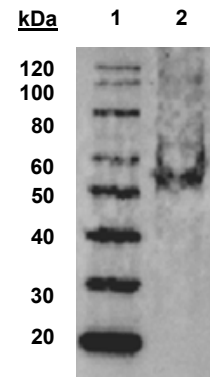
**Figure 2: Western Blot Analysis**

**A: Monoclonal Anti-Histidine Tag**



**Lane 1: MagicMark™ XP Protein Standard**  
**Lane 3: NR-42002 (20 µL)**

**B: Polyclonal Anti-NA**



**Lane 1: MagicMark™ XP Protein Standard**  
**Lane 3: NR-42002 (20 µL)**

/Sonia Bjorum Brower/  
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Technical Manager or designee, ATCC Federal Solutions

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