

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

**Catalog No. NR-19235**

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) was produced from NR-42002 lot 61759226 in-process material. The protein was expressed in Sf9 insect cells using a baculovirus expression vector system and the cellular lysate was pelleted. Inclusion bodies from the cellular lysate were purified by nickel affinity chromatography (cOmplete™ His-Tag Resin) under denaturing conditions. The purified protein was refolded by dialysis and filtered. NR-19235 contains the predicted ectodomain coding region of the N1 neuraminidase (NA) protein from influenza A virus, A/Puerto Rico/8/1934 (H1N1) (GenPept: [ABD77678](#)) fused to a synthetic gene segment encoding an N-terminal octa-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. NR-19235 lot 70041699 was vialled in 50 mM Tris-HCl (pH 8.0), 150 mM NaCl, 10 mM KCl, 1 mM EDTA, 0.5 M arginine, 0.5% Triton X-100 and 1 mM DTT.

**Lot: 70041699**

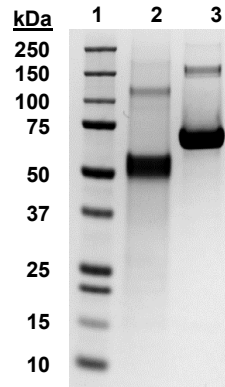
**Manufacturing Date: 04FEB2021**

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	Bands of approximately 55 kDa and 110 kDa account for 99.6% of total staining intensity (Figure 1)
<b>Identification by Western Blot Analysis</b> Monoclonal anti-histidine tag Polyclonal anti-N1 NA	Reactive Reactive	Reactive (Figure 2) <sup>1</sup> Reactive (Figure 3) <sup>2</sup>
<b>Concentration by Bicinchonic Acid Assay</b> Bovine Serum Albumin (standard)	Report results	0.75 mg per mL
<b>Final Product</b> Quantity per vial Volume per vial	Report results Report results	150 µg 200 µL
<b>Endotoxin Content (Limulus Amoebocyte Lysate Assay)</b>	Report results	< 6.64 EU per mg
<b>Filtration</b>	0.2 µm sterile-filtered	0.2 µm sterile-filtered

<sup>1</sup>Using a 1:1000 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

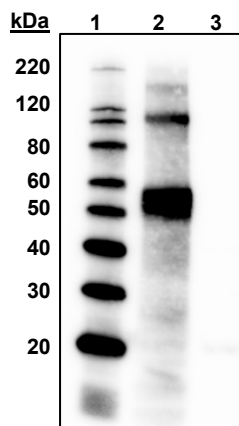
<sup>2</sup>Using a 1:1000 dilution of goat polyclonal anti-NA (A/New Jersey/08/76) (BEI Resources NR-3136) as primary antibody and a 1:1000 dilution of HRP-conjugated anti-goat IgG (R&D Systems HAF017) as secondary antibody

**Figure 1: SDS-PAGE Analysis**



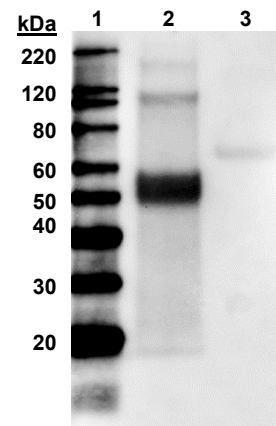
Lane 1: Precision Plus Protein™ Standard  
 Lane 2: NR-19235, 5 µg  
 Lane 3: BSA, 5 µg

**Figure 2: Western Blot with Monoclonal Anti-Histidine Tag**



Lane 1: MagicMark™ XP Protein Standard  
 Lane 2: NR-19235, 1 µg  
 Lane 3: BSA, 1 µg

**Figure 3: Western Blot with Polyclonal Anti-NA**



Lane 1: MagicMark™ XP Protein Standard  
 Lane 2: NR-19235, 1 µg  
 Lane 3: BSA, 1 µg

/Sonia Bjorum Brower/  
 Sonia Bjorum Brower

Technical Manager or designee, ATCC Federal Solutions

05 SEP 2022

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