

**Neuraminidase (NA) Protein with N-Terminal Histidine Tag from Influenza Virus, B/Florida/4/2006, Recombinant from Baculovirus**

**Catalog No. NR-19236**

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

**Product Description:**

A recombinant form of the neuraminidase (NA) protein from influenza B virus, B/Florida/4/2006 was produced from Sf9 insect cells using a baculovirus expression vector system and purified by nickel affinity chromatography. NR-19236 contains the predicted ectodomain coding region of the NA protein from influenza B virus, B/Florida/4/2006 (GenPept: [ABU50667](#)) 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-19236 lot 70030397 was vialled in phosphate-buffered saline (pH 7.4) with 20% glycerol.

**Lot: 70030397**

**Manufacturing Date: 10FEB2021**

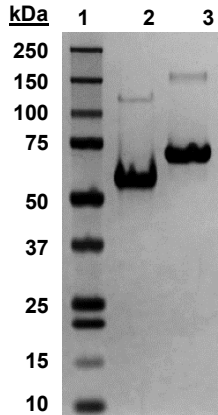
TEST	SPECIFICATIONS	RESULTS
<b>Appearance</b>	Clear and colorless	Clear and colorless
<b>SDS-PAGE Analysis</b>	Protein band of interest represents > 95% of total staining intensity	Dominant band of approximately 55 kDa accounts for 95.6% of total staining intensity (Figure 1)
<b>Identification by Western Blot Analysis</b> Polyclonal anti-NA Monoclonal anti-histidine tag	Reactive Reactive	Reactive (Figure 2) <sup>1</sup> Reactive (Figure 3) <sup>2</sup>
<b>Concentration by Bradford Assay</b> Bovine Serum Albumin (standard)	Report results	0.109 mg per mL
<b>Final Product</b> Quantity per vial Volume per vial	Report results Report results	55 µg 500 µL
<b>Functional Activity</b> Neuraminidase activity in fluorescent enzymatic assay <sup>3</sup>	Report results	1 × 10 <sup>7</sup> relative fluorescent units per µg
<b>Sterility</b>	0.2 µm sterile-filtered	0.2 µm sterile-filtered

<sup>1</sup>Using a 1:1000 dilution of goat polyclonal anti-NA (B/Hong Kong/8/1973) (BEI Resources NR-3147) as primary antibody

<sup>2</sup>Using a 1:1000 dilution of mouse monoclonal anti-histidine tag (R&D Systems Cat# MAB050) as primary antibody

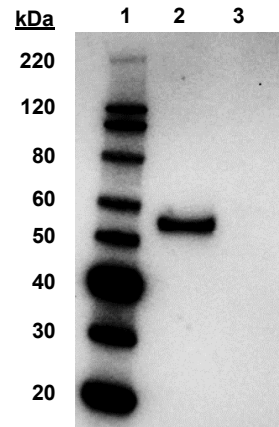
<sup>3</sup>Using serial dilutions of NR-19236 and 0.15 mM 2'-(4-methylumbelliferyl)-α-D-N-acetylneuraminic acid (4-MUNANA; Sigma Cat. No. M8639) in a one hour assay, as described in Wetherall, N. T., et al. "Evaluation of Neuraminidase Enzyme Assays Using Different Substrates to Measure Susceptibility 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**



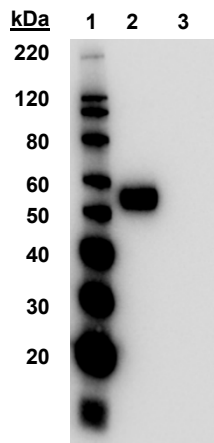
Lane 1: Precision Plus Protein Standard  
 Lane 2: NR-19236, 2 µg  
 Lane 3: BSA, 2 µg

**Figure 2: Western Blot with Polyclonal Anti-N1 NA**



Lane 1: MagicMark™ XP Protein Standard  
 Lane 2: NR-19236, 0.2 µg  
 Lane 3: BSA, 0.2 µg

**Figure 3: Western Blot with Monoclonal Anti-Histidine Tag**



Lane 1: MagicMark™ XP Protein Standard  
 Lane 2: NR-19236, 0.2 µg  
 Lane 3: BSA, 0.2 µg

/Heather Couch/  
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Program Manager or designee, ATCC Federal Solutions

04 JUN 2021

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