

## Certificate of Analysis for NR-19237

## N2 Neuraminidase (NA) Protein with N-Terminal Histidine Tag from Influenza Virus, A/Wisconsin/67/2005 (H3N2), Recombinant from Baculovirus

## Catalog No. NR-19237

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

**Product Description:** A recombinant form of the N2 neuraminidase (NA) protein from influenza virus A/Wisconsin/67/2005 (H3N2) containing an N-terminal histidine tag was produced in Sf9 insect cells using a baculovirus expression vector system and was purified by nickel affinity chromatography.

Lot: 64173189 Manufacturing Date: 04MAY2016

TEST	SPECIFICATIONS	RESULTS
Appearance	Clear and colorless	Clear and colorless
Purity by SDS-PAGE (Figure 1) and Densitometry Scan	Report results	Dominant band of ~ 55 kDa accounts for > 95% of total staining intensity
Identification by Western Blot Analysis Polyclonal anti-N2 NA <sup>1</sup> Monoclonal anti-histidine tag <sup>2</sup>	Reactive Reactive	Reactive (Figure 2) Reactive (Figure 3)
Concentration by Bicinchoninic Acid Protein Assay <sup>3</sup>	Report results	768 µg per mL
Final Product Quantity per vial Volume per vial	Report results Report results	200 μg 260 μL
Endotoxin Content (Limulus Amoebocyte Lysate Assay)	Report results	7.81 EU per mg
Functional Activity Neuraminidase activity in fluorescent enzymatic assay	Report results	8.25 × 10 <sup>9</sup> relative fluorescent units per ng <sup>4</sup>
Filtration	0.2 µm filtered	0.2 µm filtered

<sup>&</sup>lt;sup>1</sup>BEI Resources NR-3137, Polyclonal Anti-Influenza Virus N2 Neuraminidase (NA), A/Singapore/1/1957 (H2N2), (antiserum, Goat) (1:1000 dilution) <sup>2</sup>R&D Systems (Cat. No. MAB050) (IgG1) (1:1000 dilution)

**Date:** 07 JUN 2016

Signature:

**BEI Resources Authentication** 

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

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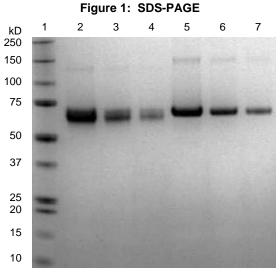
<sup>&</sup>lt;sup>3</sup>Pierce Protein Research Products (Cat. No. 23225)

<sup>&</sup>lt;sup>4</sup>Using 2.05 ng NR-19237 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.



SUPPORTING INFECTIOUS DISEASE RESEARCH

## **Certificate of Analysis for NR-19237**



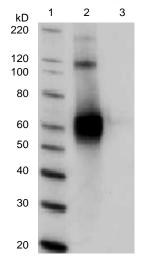
Lane 1: SeeBlue® Plus2 Standard

Lane 2: NR-19237, 4.0 μg Lane 3: NR-19237, 2.0 μg

Lane 4: NR-19237, 1.0 µg Lane 5: BSA, 4.0 µg Lane 6: BSA, 2.0 µg

Lane 7: BSA, 1.0 µg

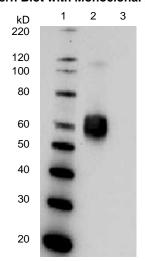
Figure 2: Western Blot with Polyclonal Anti-N2 NA



Lane 1: MagicMark™ XP Protein Standard

Lane 2: NR-19237, 1.0 µg Lane 3: BSA, 1.0 µg

Figure 3: Western Blot with Monoclonal Anti-Histidine Tag



Lane 1: MagicMark™ XP Protein Standard

Lane 2: NR-19237, 1.0 µg Lane 3: BSA, 1.0 µg

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