

## **Certificate of Analysis for NR-44082**

## N9 Neuraminidase (NA) Protein from Influenza Virus, A/Anhui/1/2013 (H7N9), Recombinant from Baculovirus

## Catalog No. NR-44082

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

**Product Description:** A recombinant form of the N9 neuraminidase (NA) protein from influenza A virus, A/Anhui/1/2013 (H7N9) was produced in Sf9 insect cells using a baculovirus expression vector system, purified by nickel affinity chromatography, and treated with thrombin to remove an N-terminal histidine tag.

Lot: 70010035 Manufacturing Date: 21FEB2018

TEST	SPECIFICATIONS	RESULTS
Appearance	Clear and colorless	Clear and colorless
SDS-PAGE	Protein band of interest represents ≥ 95% of total staining intensity	Dominant band of ~ 50 kDa accounts for ~ 95% of total staining intensity (Figure 1)
Identification by Western Blot Analysis Polyclonal anti-N9 NA <sup>1</sup> Monoclonal anti-histidine tag <sup>2</sup>	Reactive Not reactive	Reactive (Figure 2) Not reactive (Figure 3)
Concentration by Bradford Assay <sup>3</sup>	Report results	212 µg per mL
Final Product Quantity per vial Volume per vial	Report results Report results	64 μg 300 μL
Functional Activity Neuraminidase activity in fluorescent enzymatic assay	Report results	6.6 × 10 <sup>9</sup> relative fluorescence units per hour per mg protein <sup>4</sup>
Endotoxin Content (Limulus Amoebocyte Lysate Assay)	Report results	< 23.6 EU per mg
Filtration	0.2 µm sterile-filtered	0.2 µm sterile-filtered

<sup>&</sup>lt;sup>1</sup>BEI Resources NR-667, Polyclonal Anti-Influenza Virus N9 Neuraminidase (NA), A/tern/Australia/G70C/1975 (H11N9), (antiserum, Goat) (1:5000 dilution)

19MAR2018

Program Manager or designee, ATCC Federal Solutions

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

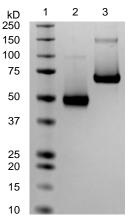
<sup>&</sup>lt;sup>3</sup>Using BSA as a standard

<sup>&</sup>lt;sup>4</sup>Using serial dilutions of NR-44366 and 0.15 mM 2'-(4-methylumbelliferyl)-\(\alpha\)-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



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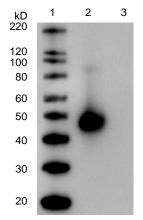
Figure 1: SDS-PAGE



Lane 1: Precision Plus Protein™ Standard

Lane 2: NR-44082, 1.0 μg Lane 3: BSA, 1.0 μg

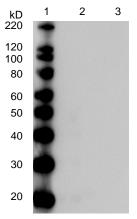
Figure 2: Western Blot with Polyclonal Anti-N9 NA



Lane 1: MagicMark™ XP Protein Standard

Lane 2: NR-44082, 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-44082, 1.0 μg Lane 3: BSA, 1.0 μg

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