b|e|i RESOURCES
SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-44364

N9 Neuraminidase (NA) Protein with N-Terminal Histidine Tag from Influenza Virus, A/Shanghai/1/2013 (H7N9), Recombinant from Baculovirus

Catalog No. NR-44364

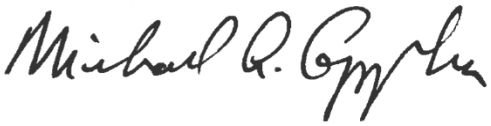
This reagent is the tangible property of the U.S. Government.

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

Lot: 402 **Manufacturing Date: 14DEC2016**

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-N8 NA[1] Monoclonal anti-histidine tag[2]	 Reactive Reactive	 Reactive (Figure 2) Reactive (Figure 3)
Concentration by Bradford Assay[3]	Report results	110 µg per mL
Final Product Quantity per vial Volume per vial	 Report results Report results	 73 µg 667 µL
Functional Activity Neuraminidase activity in fluorescent enzymatic assay	Report results	4.3×10^8 relative fluorescence units per hour per mg protein[4]
Endotoxin Content (Limulus Amoebocyte Lysate Assay)	Report results	< 11.4 EU per mg
Filtration	0.2 µm sterile-filtered	0.2 µm sterile-filtered

[1]BEI Resources NR-667, Polyclonal Anti-Influenza Virus N9 Neuraminidase (NA), A/tern/Australia/G70C/1975 (H11N9), (antiserum, Goat) (1:1000 dilution)
[2]Clontech 631212 (IgG2a) (1:1000 dilution)
[3]Using BSA as a standard
[4]Using serial dilutions of NR-50111 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

Date: 25 JAN 2017 **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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Support Provided by NIAID

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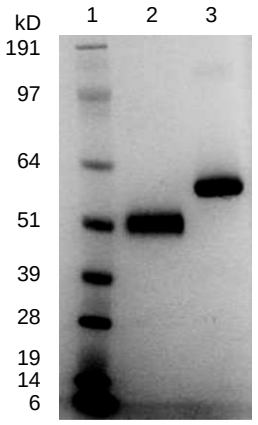
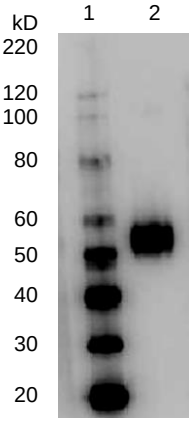
Figure 1: SDS-PAGE



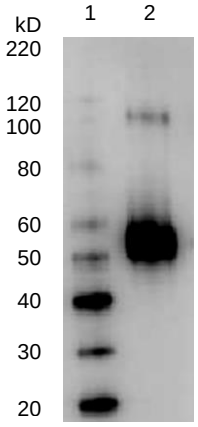
Lane 1: Precision Plus Protein™ Standard
Lane 2: NR-44364, 2.0 µg
Lane 3: BSA, 2.0 µg

Figure 2: Western Blot with Polyclonal Anti-N9 NA



Lane 1: MagicMark™ XP Protein Standard
Lane 2: NR-44364, 0.25 µg

Figure 3: Western Blot with Monoclonal Anti-Histidine Tag



Lane 1: MagicMark™ XP Protein Standard
Lane 2: NR-44364, 0.25 µg

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