Certificate of Analysis for NR-43784

N2 Neuraminidase (NA) Protein with N-terminal Histidine Tag from Influenza Virus, A/Brisbane/10/2007 (H3N2), Recombinant from Baculovirus

Catalog No. NR-43784

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

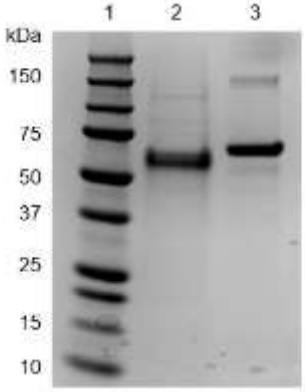
Product Description: A recombinant form of the N2 neuraminidase (NA) protein from influenza A virus A/Brisbane/10/2007 (H3N2) containing an N-terminal histidine tag was produced in Sf9 insect cells using a baculovirus expression vector system and purified by nickel affinity chromatography.

Lot: 70014879 **Manufacturing Date: 13AUG2018**

TEST	SPECIFICATIONS	RESULTS
Appearance	Clear and colorless	Clear and colorless
SDS-PAGE Analysis	Protein band of interest represents > 90% of total staining intensity	Protein band of ~ 55 kDa accounting for > 95% of total staining intensity (Figure 1)
Identification by Western Blot Analysis Polyclonal anti-N2 NA[1] Monoclonal anti-histidine tag[2]	 Reactive Reactive	 Reactive (Figure 2) Reactive (Figure 3)
Protein Concentration by Bradford Assay[3]	Report results	654 µg per mL
Final Product Amount per vial Volume per vial	 Report results Report results	 196 µg 300 µL
Functional Activity Neuraminidase activity in fluorescent enzymatic assay[4]	Report results	1.52×10^{10} relative fluorescence units per hour per mg protein
Endotoxin Content (Limulus Amoebocyte Lysate Assay)	1 – 1000 EU per mg	< 7.64 EU per mg
Filtration	0.2 µm sterile-filtered	0.2 µm sterile-filtered

[1]Polyclonal Anti-Influenza Virus N2 Neuraminidase (NA), A/Singapore/1/1957 (H2N2), (antiserum, Goat) (1:1000 dilution), BEI Resources NR-3137, was used for analysis.
[2]Monoclonal anti-histidine tag from R & D Systems (Cat. No. MAB050) (1:1000 dilution) was used for analysis.
[3]Bovine serum albumin (BSA) was used as a standard.
[4]Serial dilutions of NR-43784 and 0.15 mM 2'-(4-methylumbelliferyl)-α-D-N-acetylneuraminic acid (4-MUNANA), Sigma (Cat. No. M8639), were used 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 of Recombinant N2 NA Protein (NR-43784)



Lane 1: Precision Plus™ Protein Standard
Lane 2: NR-43784 (1 µg)
Lane 3: Positive Control, BSA (1 µg), ~66.5kDa

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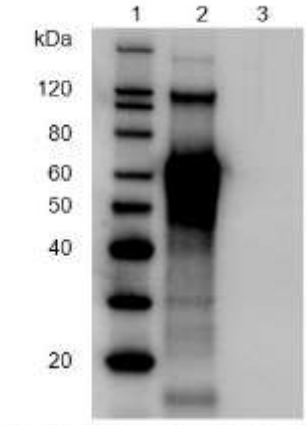
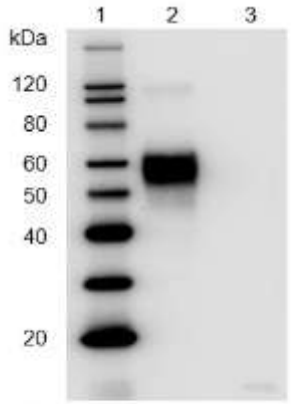
Figure 2: Western Blot with Polyclonal Anti-N2 NA



Lane 1: MagicMark™ Protein Standard
Lane 2: NR-43784 (0.5 µg)
Lane 3: Positive control, BSA (0.5 µg)

Figure 3: Western Blot with Monoclonal Anti-Histidine Tag



Lane 1: MagicMark™ Protein Standard
Lane 2: NR-43784 (0.5 µg)
Lane 3: Positive control, BSA (0.5 µg)

/Heather Couch/
Heather Couch 02 NOV 2018
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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