

H1 Hemagglutinin (HA) Protein with C-Terminal Histidine Tag from Influenza Virus, A/St. Petersburg/27/2011 (H1N1)pdm09, Recombinant from Baculovirus

Catalog No. NR-41637

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

Product Description: A recombinant form of the H1 hemagglutinin (HA) protein from influenza virus A/St. Petersburg/27/2011 (H1N1)pdm09 containing a C-terminal histidine tag was produced by baculovirus infection of *Trichoplusia ni* insect larvae and purified by standard chromatographic methods.

Lot: 61223219

Manufacturing Date: 06DEC2012

TEST	SPECIFICATIONS	RESULTS
SDS-PAGE (Coomassie Blue Densitometry)	HA bands (HA0, HA1, HA2) account for > 90% of total density	HA bands (HA0, HA1, HA2) account for 99% of total density (Figure 1)
Concentration by Bicinchoninic Acid Protein Assay	Report results	0.53 mg per mL
Final Product Quantity per vial	0.1 mg (± 10%) per vial	0.1 mg (± 10%) per vial
Hemagglutination Titer with 0.5% Chicken Red Blood Cells	Report results	16384 ¹
Western Blot Anti-histidine monoclonal antibody ²	Report results	Reactive (Figure 2)
Demonstration of Protein Glycosylation	Size reduction of protein observed on SDS-PAGE when treated with de-glycosylating enzyme N-glycosidase (PNGaseF)	Size reduction of protein observed on SDS-PAGE when treated with PNGaseF (Figure 3)
Filtration	0.22 µm filtered	0.22 µm filtered
Bioburden	Report results	< 1 colony-forming unit per mL
Endotoxin Content	Report results	< 0.5 EU per mL

¹Highest dilution of protein that showed hemagglutination activity

²Novagen® 70796-4 (IgG₁)

Date: 14 MAY 2013

Signature: 

Title: Technical Manager, BEI Authentication or designee

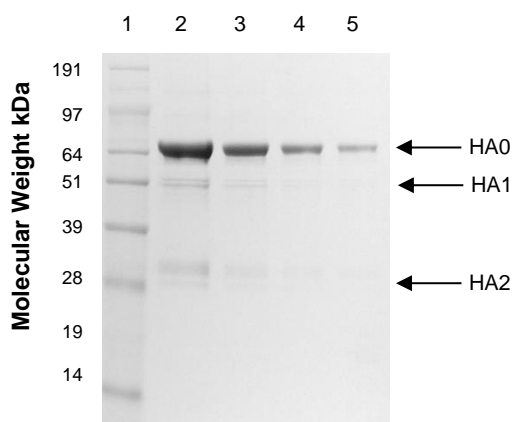
ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected by the contractor to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate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

ATCC® is a trademark of the American Type Culture Collection.

You are authorized to use this product for research use only. It is not intended for human use.

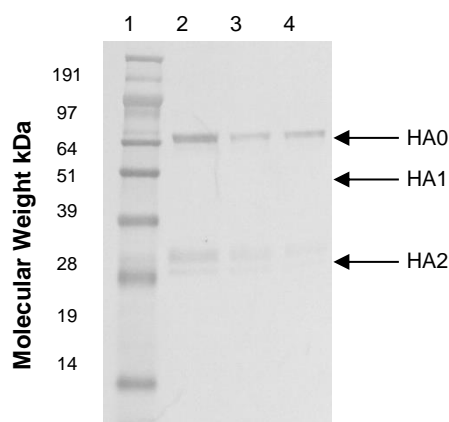


Figure 1 – SDS-PAGE



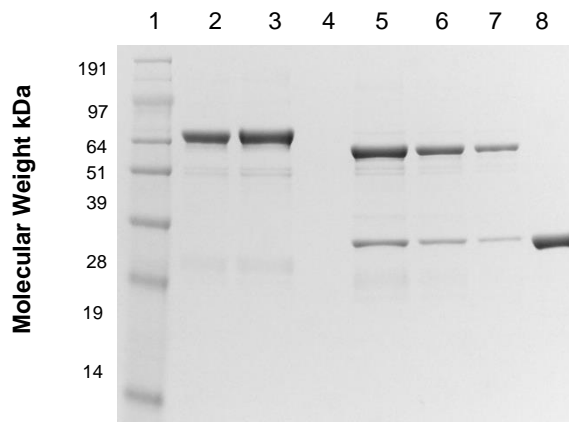
Lane 1: SeeBlue® Plus2 MW marker (Invitrogen™ LC5925)
 Lane 2: 10.0 µg NR-41637
 Lane 3: 5.0 µg NR-41637
 Lane 4: 2.5 µg NR-41637
 Lane 5: 1.25 µg NR-41637

Figure 2 – Western Blot with Monoclonal Anti-Histidine Tag



Lane 1: SeeBlue® Plus2 MW marker (Invitrogen™ LC5925)
 Lane 2: 1.0 µg NR-41637
 Lane 3: 0.5 µg NR-41637
 Lane 4: 0.25 µg NR-41637

Figure 3 – Glycan Analysis



Lane 1: SeeBlue® Plus2 MW marker (Invitrogen™ LC5925)
 Lane 2: 5 µg NR-41637
 Lane 3: 5 µg NR-41637 with digest mixture without PNGaseF
 Lane 4: Blank
 Lane 5: 5 µg NR-41637, PNGaseF Digest
 Lane 6: 2.5 µg NR-41637, PNGaseF Digest
 Lane 7: 1.25 µg NR-41637, PNGaseF Digest
 Lane 8: PNGaseF