

# Certificate of Analysis for NR-51162

## Hemagglutinin (HA) Protein from Influenza Virus, B/Malaysia/2506/2004, Recombinant from Baculovirus

### Catalog No. NR-51162

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

**Product Description:** A recombinant form of the hemagglutinin (HA) protein from influenza virus B/Malaysia/2506/2004 consisting of amino acid residues 16 to 548 with a C-terminus octa-histidine tag was produced in Sf9 insect cells using a baculovirus expression vector system and purified by cobalt affinity chromatography.

**Lot: 70015732**

**Manufacturing Date: 22JAN2019**

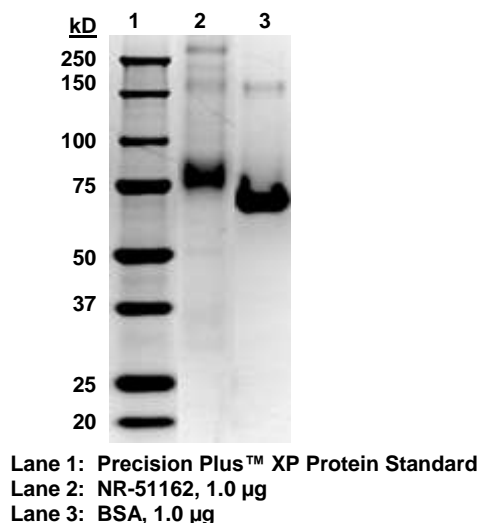
TEST	SPECIFICATIONS	RESULTS
<b>Appearance</b>	Clear and colorless	Clear and colorless
<b>SDS-PAGE Analysis</b>	Protein band of interest represents > 90% of total staining intensity	Protein band of ~ 75 kDa accounts for > 90% of total staining intensity (Figure 1)
<b>Identification by Western blot analysis</b> Polyclonal anti-HA (Influenza B) <sup>1</sup> Monoclonal anti-histidine tag <sup>2</sup>	Reactive Reactive	Reactive (Figure 2) Reactive (Figure 3)
<b>Protein Concentration by Bradford Assay<sup>3</sup></b>	Report results	120 µg per mL
<b>Final Product</b> Quantity per vial Volume per vial	Report results Report results	132 µg 1100 µL
<b>Functional Activity</b> Hemagglutination activity 0.5% chicken red blood cells 0.5% turkey red blood cells	Report results Report results	Positive Positive
<b>Endotoxin Content (Limulus Amoebocyte Lysate Assay)</b>	1 – 1000 EU per mg	< 41.67 EU per mg
<b>Filtration</b>	0.2 µm sterile-filtered	0.2 µm sterile-filtered

<sup>1</sup>Immune Technology Corp. Cat. No. IT-003-032 Polyclonal Anti-HA (Influenza B) (1:1000 dilution)

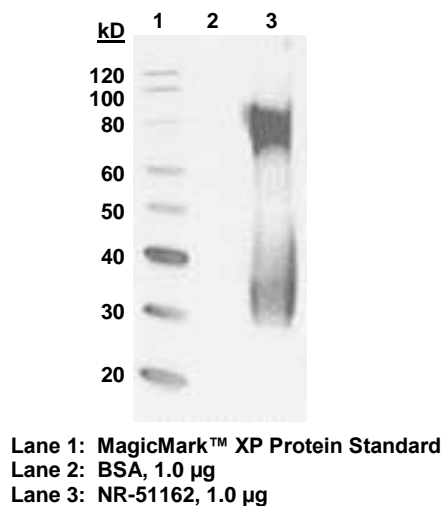
<sup>2</sup>R&D Systems® Cat. No. MAB050 (IgG1) (1:1000 dilution)

<sup>3</sup>Using BSA as a standard

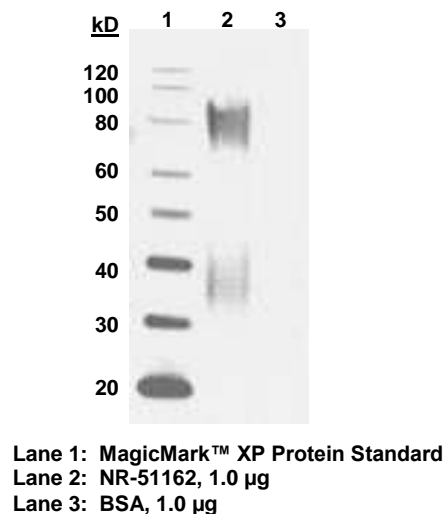
**Figure 1: SDS-PAGE Analysis of Recombinant HA Protein (NR-51162)**



**Figure 2: Western Blot with Polyclonal Anti-HA (Influenza B)**



**Figure 3: Western Blot with Monoclonal Anti-Histidine Tag**



/Heather Couch/  
Heather Couch

Program Manager or designee, ATCC Federal Solutions

03 APR 2019

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.

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.

