

Certificate of Analysis for NR-9666

H5 Hemagglutinin (HA) Protein from Influenza Virus, A/bar-headed goose/Qinghai/1A/2005 (H5N1), Recombinant from Baculovirus

Catalog No. NR-9666

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

Product Description: H5 hemagglutinin (HA) protein from influenza virus A/bar-headed goose/Qinghai/1A/2005 (H5N1) is a full-length glycosylated recombinant protein that was produced in Sf9 insect cells using a baculovirus expression vector system.¹ Recombinant H5 HA protein was purified under conditions that preserve its biological activity and tertiary structure.

Lot: 58506013 Manufacturing Date: FEB2008

| TEST | SPECIFICATIONS | RESULTS |
|--|--|--|
| SDS-PAGE (Coomassie Blue densitometer scan) | Report results | HA bands (HA0, HA1, HA2) account for > 90% of total density |
| Protein Concentration by Bicinchoninic Acid Assay | Report results | 550 μg per mL (FEB2008) |
| Functional Activity Hemagglutination titer using 0.5% chicken red blood cells | Report results | 1:5120 |
| Hemagglutination inhibition (HI) assay ² using polyclonal antiserum to 16 HA subtypes ² | Specific to H5 HA subtype | Specific to H5 HA subtype |
| HI titers ² using polyclonal antiserum to H5 HA subtype A/Vietnam/1203/2004 (H5N1) goat antiserum A/Vietnam/1203/2004 (H5N1) & A/Hong Kong/213/2003 (H5N1) goat antiserum ³ | Report results Report results | 1:640 1:1280 |
| HI titers ² using monoclonal antibody to H5 HA subtype A/Vietnam/1203/2004 (H5N1) antibody (VN04-8) A/Vietnam/1203/2004 (H5N1) antibody (VN04-13) A/Vietnam/1203/2004 (H5N1) antibody (VN04-16) | Report results Report results Report results | 1:12800 1:12800 1:3200 |
| Sterility | 0.22 µm filter-sterilized | 0.22 µm filter-sterilized |
| Endotoxin Content | Report results | < 12.5 EU per mL |

U.S. Patent Numbers 5,762,939 and 6,103,526

Date: 01 MAY 2014

Signature:

Title: Technical Manager, BEI Authentication or designee

Michael Q. Comba

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²Serum samples were incubated overnight with receptor-destroying enzyme and heated for 30 minutes at 56°C.

³BEI Resources NR-2706