

Certificate of Analysis for NR-660

H5 Hemagglutinin (HA) Protein from Influenza Virus, A/Vietnam/1203/2004 (H5N1), Recombinant from baculovirus

Catalog No. NR-660

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

Product Description: Recombinant H5 hemagglutinin (HA) protein from influenza virus A/Vietnam/1203/2004 (H5N1) was produced in Sf9 insect cells using a baculovirus expression vector system¹ and was purified using conventional chromatographic techniques.

Lot: 4146578 Manufacturing Date²: 30MAR2004

TEST	SPECIFICATIONS	RESULTS
SDS-PAGE (Coomassie Blue densitometer scan)	Report results	HA bands (HA0, HA1, HA2) account for > 90% of total density
Concentration by Bicinchoninic Acid Protein Assay ³	Report results	138 μg/mL (27MAY2005)
Functional Activity Hemagglutination assay Hemagglutination inhibition (HI) assay HI and ELISA assays	Report results Specific to H5 HA subtype Reactive within H5 HA subtype	Active Specific to H5 HA subtype Reactive within H5 HA subtype
Microbial Content	0.2 micron filter sterilized	0.2 micron filter sterilized
Sterility (post-vialing; 21-day incubation) Harpo's HTYE broth ⁴ , 37°C and 26°C, aerobic Trypticase soy broth, 37°C and 26°C, aerobic Sabouraud broth, 37°C and 26°C, aerobic Sheep blood agar, 37°C, aerobic Sheep blood agar, 37°C, anaerobic Thioglycollate broth, 37°C, anaerobic DMEM with 10% FBS, 37°C and 5% CO ₂	No growth	No growth
Endotoxin Content (Limulus Amoebocyte Lysate assay)	< 0.1 EU endotoxin per μg protein	< 0.01 EU endotoxin per μg protein

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

Date: 24 JAN 2014

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Title:

Technical Manager, BEI Authentication or designee

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BEI Resources www.beiresources.org E-mail: contact@beiresources.org
Tel: 800-359-7370

Fax: 703-365-2898

²Note: The manufacturing date indicated on the vial is the deposit date.

³Pierce Biotechnology, Inc.

⁴Atlas, Ronald M. Handbook of Microbiological Media. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.