Certificate of Analysis for NR-19242

Hemagglutinin (HA) Protein from Influenza Virus, B/Jilin/20/2003, Recombinant from Baculovirus

Catalog No. NR-19242

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

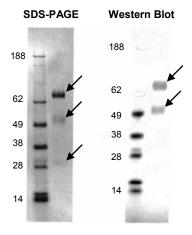
Product Description: Hemagglutinin (HA) protein from influenza virus, B/Jilin/20/2003 is a full-length glycosylated recombinant protein that was produced in Sf9 insect cells using a baculovirus expression vector system.¹ Recombinant HA protein was purified under conditions that preserve its biological activity and tertiary structure.

Lot: 59311911 Manufacturing Date: 04JUN2010

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 > 90% of total density (Figure 1)
Concentration by Bicinchoninic Acid Protein Assay	Report results	105 μg per mL
Hemagglutination (HA) Assay with Chicken Red Blood Cells	Report results	20,408 HA units per μg
Final Product Quantity per vial Volume per vial	100 μg (± 10%) per vial Report results	115.5 µg per vial ² 1.1 mL per vial
Western Blot Anti-histidine monoclonal antibody	Report results	Reactive with HA0 and HA1 (Figure 1)
Filtration	0.22 µm filtered	0.22 µm filtered
Bioburden	Report results	< 10 colony-forming units per mL
Endotoxin Content	Report results	< 6.25 EU per mL

¹U.S. Patent Numbers 5,762,939 and 6,103,526.





Lane 1: Invitrogen™ MW Marker Lane 2: 1.0 µg NR-19242

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²Exceeds specification.



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Date: 03 NOV 2010 Signature: Doothy C. Young

Title: Technical Manager, BEI Authentication or designee

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