

## **Certificate of Analysis for NR-45149**

## Influenza A Virus, A/mallard/Alberta/54/1993 (H3N9)

Catalog No. NR-45149

**Product Description:** Pooled allantoic fluid from specific pathogen free (SPF) embryonated chicken eggs<sup>1</sup> infected with influenza A virus, A/mallard/Alberta/54/1993 (H3N9)

Lot<sup>2</sup>: 63013273 Manufacturing Date: 22OCT2014

| TEST   | SPECIFICATIONS  | RESULTS  |
|--|---|--|
| Identification by Infectivity Using Embryonated Chicken Eggs <sup>1</sup> Hemagglutination activity using allantoic fluid from infected eggs and 0.5% chicken red blood cells  | Positive  | Positive   |
| Sequencing of Hemagglutinin and Matrix Coding Regions Hemagglutinin (697 nucleotides)  Matrix (932 nucleotides)  | Consistent with A/mallard/<br>Alberta/54/1993 (H3N9)<br>Consistent with A/mallard/<br>Alberta/ 54/1993 (H3N9) | 100% identity with A/mallard/<br>Alberta/54/1993 (H3N9)<br>(GenBank: CY101824)<br>100% identity with A/mallard/<br>Alberta/54/1993 (H3N9)<br>(GenBank: CY101825) |
| Titer by CEID <sub>50</sub> Assay <sup>3,4</sup> in Embryonated Chicken Eggs <sup>1</sup>  | Report results  | $8.9 \times 10^8  \text{CEID}_{50}  \text{per mL}$   |
| Sterility (21-day incubation) Harpo's HTYE broth <sup>5</sup> , 37°C and 26°C, aerobic Trypticase soy broth, 37°C and 26°C, aerobic Sabouraud broth, 37°C and 26°C, aerobic Blood agar, 37°C, aerobic Blood agar, 37°C, anaerobic Thioglycollate broth, 37°C, anaerobic DMEM with 10% FBS, 37°C and 5% CO <sub>2</sub> | No growth                               | No growth  |
| Mycoplasma Contamination  Agar and broth culture (14-day incubation at 37°C)  DNA detection by PCR of extracted Test Article nucleic acid  | None detected<br>None detected  | None detected<br>None detected   |

<sup>&</sup>lt;sup>1</sup>9- to 11-day-old SPF Embryonated Chicken Eggs acquired from B&E Eggs, York Springs, Pennsylvania <sup>2</sup>Grown in the allantoic cavity of embryonated chicken eggs¹ for 2 days at 35°C in a humidified chamber

**Date:** 19 JAN 2015

Signature:

Title:

Technical Manager, BEI Authentication or designee

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<sup>&</sup>lt;sup>3</sup>The Chicken Embryo Infectious Dose 50% (CEID<sub>50</sub>) is the dilution of virus that under the conditions of the assay can be expected to infect 50% of the inoculated embryonated chicken eggs, just as a Lethal Dose 50% (LD<sub>50</sub>) is expected to kill half of the animals exposed. A reciprocal of the dilution required to yield the CEID<sub>50</sub> provides a measure of the infectious titer (or infectivity) of a virus preparation.

<sup>&</sup>lt;sup>4</sup>2 days at 35°C in a humidified chamber

<sup>&</sup>lt;sup>5</sup>Atlas, Ronald M. <u>Handbook of Microbiological Media</u>. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004. p. 798.