

## **Certificate of Analysis for NR-3660**

Kilbourne F101: A/California/32/1999 (HA, NA) x A/Puerto Rico/8/1934 (H3N2), Reassortant X-145

Catalog No. NR-3660

**Product Description:** Pooled allantoic fluid from specific pathogen free (SPF) embryonated chicken eggs<sup>1</sup> infected with reassortant influenza A virus, A/California/32/1999 (HA, NA) x A/Puerto Rico/8/1934 (H3N2)

Lot<sup>2,3</sup>: 60341197 Manufacturing Date: 210CT2011

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 (691 nucleotides)	Consistent with H3N2	Consistent with H3N2
	influenza A virus <sup>4</sup>	influenza A virus <sup>4</sup>
Matrix (633 nucleotides)	Consistent with	99% identity with
	A/Puerto Rico/8/1934 (H1N1)	A/Puerto Rico/8/1934 (H1N1) (GenBank: EF467824)
Titer by CEID₅₀ Assay⁵,6 in Embryonated Chicken Eggs¹	Report results	$2.8 \times 10^7$ CEID <sub>50</sub> per mL
Sterility (21-day incubation)		
Harpo's HTYE broth <sup>7</sup> , 37°C and 26°C, aerobic	No growth	No growth
Trypticase soy broth, 37°C and 26°C, aerobic	No growth	No growth
Sabouraud broth, 37°C and 26°C, aerobic	No growth	No growth
Blood agar, 37°C, aerobic	No growth	No growth
Blood agar, 37°C, anaerobic	No growth	No growth
Thioglycollate broth, 37°C, anaerobic	No growth	No growth
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)	None detected	None detected
DNA detection by PCR of extracted Test Article nucleic acid	None detected	None detected

<sup>&</sup>lt;sup>1</sup>10 to 11-day-old SPF Embryonated Chicken Eggs acquired from B&E Eggs, York Springs, Pennsylvania

Date: 07 MAY 2012 Signature: Sign

**Title:** Technical Manager, BEI Authentication or designee

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.

BEI Resources
www.beiresources.org

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

Fax: 703-365-2898

<sup>&</sup>lt;sup>2</sup>Derived from NIAID Catalog No. V-331-0E5548

<sup>&</sup>lt;sup>3</sup>Grown in the allantoic cavity of embryonated chicken eggs<sup>1</sup> for 2 days at 35°C in a humidified chamber

<sup>&</sup>lt;sup>4</sup>The H3 HA sequence of influenza Á/California/32/1999 is not in the NCBI database; the HA sequence obtained for NR-3660 is consistent with those of H3N2 influenza viruses isolated in 1999 and 2000.

<sup>&</sup>lt;sup>5</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>6</sup>2 days at 35°C in a humidified chamber

<sup>&</sup>lt;sup>7</sup>Atlas, Ronald M. <u>Handbook of Microbiological Media</u>. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.