

**Kilbourne F42: A/Leningrad/549/1980 (HA) x A/Puerto Rico/8/1934 (NA) (H3N1)**

**Catalog No. NR-3609**

**Product Description:** Pooled allantoic fluid from specific pathogen free (SPF) embryonated chicken eggs<sup>1</sup> infected with reassortant influenza A virus, A/Leningrad/549/1980 (HA) x A/Puerto Rico/8/1934 (NA) (H3N1)

**Lot<sup>2,3</sup>: 61982339**

**Manufacturing Date: 30AUG2013**

TEST	SPECIFICATIONS	RESULTS
<b>Identification by Infectivity Using Embryonated Chicken Eggs<sup>1</sup></b> Hemagglutination activity using allantoic fluid from infected eggs and 0.5% chicken red blood cells	Positive	Positive
<b>Sequencing of Hemagglutinin, Matrix, and Neuraminidase Coding Regions</b> Hemagglutinin (668 nucleotides)  Matrix (915 nucleotides)  Neuraminidase (491 nucleotides)	Consistent with H3N2 influenza A virus <sup>4</sup> Consistent with A/Puerto Rico/8/1934 (H1N1)  Consistent with A/Puerto Rico/8/1934 (H1N1)	Consistent with H3N2 influenza A virus <sup>4</sup> 99% identity with A/Puerto Rico/8/1934 (H1N1) (GenBank: CY105897) 100% identity with A/Puerto Rico/8/1934 (H1N1) (GenBank: CY105898)
<b>Titer by CEID<sub>50</sub> Assay<sup>5,6</sup> in Embryonated Chicken Eggs<sup>1</sup></b>	Report results	1.6 × 10 <sup>9</sup> CEID <sub>50</sub> per mL
<b>Sterility (21-day incubation)</b> Harpo's HTYE broth <sup>7</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 No growth No growth No growth No growth No growth	No growth No growth No growth No growth No growth No growth No growth
<b>Mycoplasma Contamination</b> Agar and broth culture (14-day incubation at 37°C) DNA detection by PCR of extracted Test Article nucleic acid	None detected None detected	None detected None detected

<sup>1</sup>9- to 11-day-old SPF Embryonated Chicken Eggs acquired from B&E Eggs, York Springs, Pennsylvania

<sup>2</sup>Derived from NIAID Catalog No. V-331-0E5487

<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>4</sup>The H3 HA sequence of influenza A/Leningrad/549/1980 is not in the NCBI database; the HA sequence obtained for NR-3609 is consistent with those of H3N2 influenza viruses isolated in the late 1970s and early 1980s.


<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>6</sup>2 days at 35°C in a humidified chamber

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

## Certificate of Analysis for NR-3609

**Date:** 08 JAN 2014

**Signature:** 

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

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