

Certificate of Analysis for NR-3655

Kilbourne F70: A/England/427/1988 (HA, NA) x A/Puerto Rico/8/1934 (H3N2),

Reassortant X-103

Catalog No. NR-3655

Product Description: Pooled allantoic fluid from specific pathogen free (SPF) embryonated chicken eggs¹ infected with reassortant influenza A virus, A/England/427/1988 x A/Puerto Rico/8/1934 (H3N2)

Lot^{2,3}: 60341195 Manufacturing Date: 21OCT2011

TEST	SPECIFICATIONS	RESULTS
Identification by Infectivity Using Embryonated Chicken Eggs ¹ 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 (655 nucleotides) Matrix (859 nucleotides)	Consistent with A/England/427/1988 (H3N2) Consistent with	99% Identity with A/England/427/1988 (H3N2) (Gen Bank: L18997) 100% identity with
Titer by CEID ₅₀ Assay ^{4,5} in Embryonated Chicken Eggs ¹	A/Puerto Rico/8/1934 (H1N1) Report results	A/Puerto Rico/8/1934 (H1N1) (GenBank: CY095710) 1.6 × 10 ⁸ CEID ₅₀ per mL
Sterility (21-day incubation) Harpo's HTYE broth ⁶ , 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 ₂	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 None detected	None detected None detected

¹11-day-old SPF Embryonated Chicken Eggs acquired from B&E Eggs, York Springs, Pennsylvania

Date: 28 JUN 2012

Signature: Derothy C. Young

Title:

Technical Manager, BEI Authentication or designee

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²Derived from NIAID Catalog No. V-331-0E5543

³Grown in the allantoic cavity of embryonated chicken eggs¹ for 2 days at 35°C in a humidified chamber

⁴The Chicken Embryo Infectious Dose 50% (CEID₅₀) 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% (LD₅₀) is expected to kill half of the animals exposed. A reciprocal of the dilution required to yield the CEID₅₀ provides a measure of the infectious titer (or infectivity) of a virus preparation.

⁵2 days at 35°C in a humidified chamber

⁶Atlas, Ronald M. <u>Handbook of Microbiological Media</u>. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.