

Influenza A Virus, A/bovine/Ohio/B24OSU-439/2024 (H5N1), Tissue Culture Adapted

Catalog No. NR-59872

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Product Description:

Influenza A virus, A/bovine/Ohio/B24OSU-439/2024 (H5N1) was isolated from a dairy cow on April 5, 2024, in Ohio, USA. NR-59872 lot 70070368 was produced in Madin-Darby canine kidney cells (MDCK; ATCC® CCL-34) infected with the deposited material and incubating in Eagle's Minimum Essential Medium (ATCC® 30-2003™) supplemented with 0.125% bovine serum albumin and 1 µg/mL TPCK-treated trypsin for 2 days at 37°C and 5% CO₂.

Lot: 70070368

Manufacturing Date: 05AUG2024

TEST	SPECIFICATIONS	RESULTS
Identification by Infectivity Using MDCK cells	Positive	Positive
Next-Generation Sequencing (NGS) of Complete Genome Using Illumina® MiSeq™ Platform Hemagglutinin gene (~ 1750 nucleotides) Matrix protein 1 and BM2 protein genes (~ 1000 nucleotides)	≥ 98% identity with A/bovine/Ohio/B24OSU-439/2024 (H5N1) (GenBank: PP836471) ≥ 98% identity with A/bovine/Ohio/B24OSU-439/2024 (H5N1) (GenBank: PP836474)	100% identity with A/bovine/Ohio/B24OSU-439/2024 (H5N1) (GenBank: PP836471) 100% identity with A/bovine/Ohio/B24OSU-439/2024 (H5N1) (GenBank: PP836474)
Titer by TCID₅₀ Assay in MDCK Cells by Cytopathic Effect¹ (7 days at 37°C and 5% CO ₂)	Report results	3.1 × 10 ⁶ TCID ₅₀ /mL ²
Sterility (21-day incubation) Harpo's HTYE broth, 37°C and 26°C, aerobic ³ Trypticase Soy broth, 37°C and 26°C, aerobic Sabouraud broth, 37°C and 26°C, aerobic Sheep blood agar, 37°C, aerobic Sheep blood agar, 37°C, anaerobic Thioglycollate broth, 37°C, anaerobic DMEM with 10% FBS, 37°C, aerobic	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
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

¹The Tissue Culture Infectious Dose 50% (TCID₅₀) endpoint is the 50% infectious endpoint in cell culture. The TCID₅₀ is the dilution of virus that under the conditions of the assay can be expected to infect 50% of the culture vessels inoculated, 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 TCID₅₀ provides a measure of the infectious titer (or infectivity) of a virus preparation.

²Titer was determined by cytopathic effects (CPE) and completed in quadruplicate (1.6 × 10⁶ TCID₅₀ per mL, 8.9 × 10⁵ TCID₅₀ per mL, 8.9 × 10⁵ TCID₅₀ per mL and 8.9 × 10⁵ TCID₅₀ per mL). The average of the four values is reported.

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

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