

Influenza B Virus, B/Macha/I1080/2021

Catalog No. NR-59469

Product Description:

Influenza B virus, B/Macha/I1080/2021 was isolated from a human in Zambia in 2021. NR-59469 lot 70062501 was produced by infecting Madin-Darby canine kidney-SIAT1 cells (MDCK-SIAT1; Sigma 05071502-1VL) with influenza B virus, B/Macha/I1080/2021 and incubating in Dulbecco's Modified Eagle Medium (ATCC® 30-2002™) supplemented with 0.3% bovine serum albumin and 5 µg/mL N-acetyl trypsin for 4 days at 33°C and 5% CO₂. The cell lysate and supernatant were spin-clarified at 500 × g for 10 minutes at 4°C.

Passage History:

hNEC(1), MDCK-SIAT1(1) / MDCK-SIAT1(1) (Johns Hopkins University/BEI Resources); hNEC = human Nasal Epithelial Cells; MDCK-SIAT1 = Madin-Darby canine kidney-SIAT1 cells

Lot: 70062501

Manufacturing Date: 31OCT2023

TEST	SPECIFICATIONS	RESULTS
Identification by Infectivity in MDCK-SIAT1 Cells	Cell rounding and detachment	Cell rounding and detachment
Sequencing of Hemagglutinin and Neuraminidase Coding Regions Hemagglutinin (~ 1850 nucleotides) Neuraminidase (~ 1530 nucleotides)	Consistent with influenza B virus hemagglutinin (HA) Consistent with influenza B virus hemagglutinin (HA)	Consistent with influenza B virus HA Consistent with influenza B virus HA
Next-Generation Sequencing (NGS) of Complete Genome Using Illumina® MiSeq™ Platform	Consistent with sequence of depositor's material	Consistent with sequence of depositor's material
Titer by TCID₅₀ Assay in MDCK-SIAT1 Cells by Hemagglutination Assay^{1,2} (7 days at 33°C and 5% CO ₂)	Report results	8.9 × 10 ⁷ TCID ₅₀ /mL
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.

²Assay performed using 0.5% turkey red blood cells

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

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