

Human Metapneumovirus, TN/93-32

Catalog No. NR-22240

Product Description:

Human metapneumovirus (HMPV), TN/93-32 was isolated in 1993 from a human specimen collected in Tennessee, USA. NR-22240 lot 70039860 was produced by infecting *Macaca mulatta* kidney epithelial cells (LLC-MK2; ATCC® CCL-7.1™) in Opti-MEM® Minimal Essential Medium (Gibco® 31985) supplemented with 2 mM L-glutamine (ATCC® 30-2214™), 100 µg per mL CaCl₂, and 5 µg per mL trypsin (ATCC® 30-2101™) for 5 days at 37°C and 5% CO₂.

Passage History:

L(X)/L(7) (Vanderbilt/BEI Resources); L = LLC-MK2 cells; X = unknown

Lot: 70039860

Manufacturing Date: 24NOV2020

TEST	SPECIFICATIONS	RESULTS
Identification by Infectivity in LLC-MK2 Derivative Cells	Report results	Cell rounding and sloughing
Identification by Direct Fluorescent Antibody (DFA) Assay ¹	Fluorescence observed	Fluorescence observed
Sequencing of Species-Specific Region ² Gene L (890 nucleotides)	≥ 99% identity with HMPV, TN/93-32 (GenBank: KC562223.1)	99.9% identity with HMPV, TN/93-32 (GenBank: KC562223.1)
Titer by TCID ₅₀ Assay in LLC-MK2 Cells with DFA Readout ^{1,3} (7 days at 37°C and 5% CO ₂)	Report results	1.6 × 10 ⁶ TCID ₅₀ per mL
Amplification of HMPV Sequence by RT-PCR	~ 980 base pair amplicon	~ 980 base pair amplicon
Sterility (21-day incubation) Harpo's HTYE broth, 37°C and 26°C, aerobic ⁴ 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

¹Using FITC-labeled human metapneumovirus DFA reagent (Light Diagnostics™ 5091)

²The limited nucleotide sequencing of NR-22240 performed at BEI Resources is not sufficient to confirm exact strain identity owing to the high degree of sequence conservation within HMPV lineages.

³The 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 titer (or infectivity) of a virus preparation.

⁴Atlas, Ronald M. *Handbook of Microbiological Media*. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

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22 MAR 2021

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