

Human Coronavirus, 229E

Catalog No. NR-52726

Product Description:

Human coronavirus (HCoV), 229E was isolated in 1962 from a human adult with minor upper respiratory illness. NR-52726 lot 70035627 was produced by infecting human lung fibroblast cells (MRC-5; ATCC® CCL-171™) and incubating in Eagle's Minimum Essential Medium (ATCC® 30-2003) supplemented with 2% fetal bovine serum (ATCC® 30-2020) for 2 days at 35°C with 5% CO₂.

Passage History:

HK(2)WI(11)RU(8)WI(1)MRC(3)/MRC(1) (Prior to deposit at BEI Resources/BEI Resources); HK = Human embryonic kidney cells; WI = Human lung fibroblast WI-38 cells; RU = Human embryonic lung RU-1 cells; MRC = MRC-5 cells

Lot: 70035627

Manufacturing Date: 13MAY2020

TEST	SPECIFICATIONS	RESULTS
Identification by Infectivity in MRC-5 Cells	Cell rounding and clumping	Cell rounding and clumping
Whole Genome Sequencing (~ 27310 nucleotides)	≥ 98% identity with HCoV, 229E (GenBank: AF304460.1)	99.9% identity with HCoV, 229E (GenBank: AF304460.1)
Titer by TCID₅₀ Assay in MRC-5 Cells by Cytopathic Effect¹ (6 days at 35°C with 5% CO ₂)	Report results	1.6 × 10 ⁶ TCID ₅₀ per mL
Amplification of HCoV Sequence by RT-PCR	~ 1080 base pair amplicon	~ 1080 base pair amplicon
Sequencing of Species-Specific Region (~ 1000 nucleotides)	≥ 98% identity with HCoV, 229E (GenBank: AF304460.1)	99.9% identity with HCoV, 229E (GenBank: AF304460.1)
Sterility (22-day incubation) Harpo's HTYE broth, 37°C and 26°C, aerobic ² 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 and 5% CO ₂	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 titer (or infectivity) of a virus preparation.

²Atlas, Ronald M. *Handbook of Microbiological Media*. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

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