

Human Coronavirus, OC43

Catalog No. NR-52725

Product Description:

Human coronavirus (HCoV), OC43 was isolated in 1967 from a respiratory sample from a human adult with a cold-like illness in the Common Cold Unit, Salisbury, England, United Kingdom and deposited with ATCC® as VR-759™, which was cleaned of mycoplasma contamination and adapted to cell culture and became VR-1558™. VR-1558 was used to produce BEI Resources NR-52725. NR-52725 lot 70035625 was produced by infecting human ileocecal colorectal adenocarcinoma cells (HCT-8 [HRT-18]; ATCC CCL-244™) and incubating in RPMI-1640 medium (ATCC 30-2001™) supplemented with 2% heat-inactivated horse serum (Gibco® 26050-088) for 6 days rocking at 33°C with 5% CO₂.

Passage History:

X(?)HRT-18(7)/HCT-8(6)/HCT-8(1) (Prior to deposit at ATCC/ATCC/BEI Resources); X = Unknown; HRT-18 = Human ileocecal colorectal adenocarcinoma cells; HCT-8 = Human ileocecal colorectal adenocarcinoma cells (ATCC CCL-244)

Lot: 70035625

Manufacturing Date: 13MAY2020

TEST	SPECIFICATIONS	RESULTS
Identification by Infectivity in HCT-8 Cells	Cell vacuolization and sloughing	Cell vacuolization and sloughing
Whole Genome Sequencing (~ 307200 nucleotides)	≥ 98% identity with HCoV, OC43 (GenBank: AY585228.1)	99.7% identity with HCoV, OC43 (GenBank: AY585228.1)
Titer by TCID₅₀ Assay in HCT-8 Cells by Cytopathic Effect¹ (11 days at 33°C with 5% CO ₂)	Report results	8.9 × 10 ⁴ TCID ₅₀ per mL
Amplification of HCoV Sequence by RT-PCR	~ 430 base pair amplicon	~ 430 base pair amplicon
Sequencing of Species-Specific Region (~ 410 nucleotides)	≥ 98% identity with HCoV, OC43 (GenBank: AY585228.1)	99.8% identity with HCoV, OC43 (GenBank: AY585228.1)
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.

/Heather Couch/

Heather Couch

06 JUL 2020

Program Manager or designee, ATCC Federal Solutions

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

ATCC® is a trademark of the American Type Culture Collection.

You are authorized to use this product for research use only. It is not intended for human use.

