

Middle East Respiratory Syndrome Coronavirus (MERS-CoV), EMC/2012

Catalog No. NR-44260

Product Description:

MERS-CoV, EMC/2012 was isolated in 2012 from an elderly man with fatal pneumonia in Saudi Arabia. NR-44260 lot 70002733 was produced by infecting *Cercopithecus aethiops* kidney cells (Vero E6; ATCC® CRL-1586™) with the deposited material in Dulbecco's Modified Eagle's Medium (ATCC® 30-2002) supplemented with 2% fetal bovine serum (ATCC® 30-2020) for 2 days at 37°C with 5% CO₂.

Passage History:

Dr. Soliman Fakeeh Hospital: Vero (4); Erasmus Medical Center: Vero (2); Rocky Mountain Laboratories, NIAID, NIH: Vero E6 (1); BEI Resources: Vero E6 (3)

Lot: 70002733

Manufacturing Date: 09MAR2017

TEST	SPECIFICATIONS	RESULTS
Identification by Infectivity in Vero E6 cells	Refractile cell rounding and detachment	Refractile cell rounding and detachment
Sequencing of Species-Specific Region (~ 1160 nucleotides)	≥ 98% identity with MERS-CoV, EMC/2012 (GenBank: JX869059)	100% identity with MERS-CoV, EMC/2012 (GenBank: JX869059)
Titer by TCID₅₀ Assay in Vero E6 cells by Cytopathic Effect¹	Report results	1.6 × 10 ⁶ TCID ₅₀ per mL in 5 days at 37°C and 5% CO ₂
Sterility (21-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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08 APR 2020

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