

Middle East Respiratory Syndrome Coronavirus, EMC/2012, Heat-Inactivated

Catalog No. NR-50171

Product Description:

NR-50171 is a preparation of Middle East Respiratory Syndrome Coronavirus (MERS-CoV), EMC/2012 that has been inactivated by heating to 65°C for 30 minutes, followed by 5-fold dilution prior to vialing.

The starting material (BEI Resources NR-44260 lot 62043787) was produced by infecting *Cercopithecus aethiops* kidney cells (Vero E6; ATCC® CRL-1586™) in Dulbecco's Minimum Essential Medium (ATCC® 30-2002™) supplemented with 2% fetal bovine serum (ATCC® 30-2020™) for 3 days at 37°C with 5% CO₂. Titer of NR-44260 was 2.8 × 10⁶ TCID₅₀ per mL by TCID₅₀ assay in Vero E6 cells, determined by cytopathic effect in 5 days at 37°C with 5% CO₂, and sterility of the preparation was confirmed.¹

Lot: 70032733

Manufacturing Date: 26APR2021

TEST	SPECIFICATIONS	RESULTS
Genome Copy Number Using BioRad QX200 Droplet Digital PCR (ddPCR™) System²	Report results	6.01 × 10 ⁸ genome equivalents per mL ³
Virus Inactivation 10% of total bulk heat-treated preparation inoculated on Vero E6 cells and evaluated for cytopathic effect and presence of viral RNA by qRT-PCR ⁴	No viable virus detected	No viable virus detected

¹The Tissue Culture Infectious Dose 50% (TCID₅₀) 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.

²The genome copy number reported is obtained using Qiagen RNA extraction kit (Cat 52904).

³Two vials of NR-50171 lot 70032733 were used for RNA extraction. Average of the results obtained from nine replicates from one vial and seven replicates from the other is reported.

⁴The inactivated virus preparation was plated on Vero E6 cells and incubated for 14 days at 37°C and 5% CO₂; cell lysate and supernatant from these cultures were blind passaged on fresh monolayers of Vero E6 cells and again incubated for 14 days at 37°C and 5% CO₂. Samples from both passages were also tested by qPCR at the end of day 14 of the passages.

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