SUPPORTING INFECTIOUS DISEASE RESEARCH

SARS-Related Coronavirus 2, Isolate USA-WA1/2020, Heat Inactivated

Catalog No. NR-52286

This reagent is the tangible property of the U.S. Government.

Product Description:

NR-52286 is a preparation of SARS-Related Coronavirus 2 (SARS-CoV-2), isolate USA-WA1/2020 that has been inactivated by heating to 65°C for 30 minutes.

Lot: 70034991

Manufacturing Date: 09APR2020

TEST	SPECIFICATIONS	RESULTS
Pre-Inactivation Titer by TCID ₅₀ Assay in Vero E6 Cells ¹ (7 days at 37°C and 5% CO ₂)	Report results	1.6 × 10 ⁵ TCID ₅₀ per mL
Pre-Inactivation Sterility		
Harpo's HTYE broth, 37°C and 26°C, aerobic ²	No growth	No growth
Trypticase Soy broth, 37°C and 26°C, aerobic	No growth	No growth
Sabouraud broth, 37°C and 26°C, aerobic	No growth	No growth
Sheep blood agar, 37°C, aerobic	No growth	No growth
Sheep blood agar, 37°C, anaerobic	No growth	No growth
Thioglycollate broth, 37°C, anaerobic	No growth	No growth
DMEM with 10% FBS, 37°C and 5% CO ₂	No growth	No growth
Pre-Inactivation Mycoplasma Contamination		
Agar and broth culture (14-day incubation at 37°C)	None detected	None detected
DNA Detection by PCR of Test Article nucleic acid	None detected	None detected
Genome Copy Number Using BioRad QX200 Droplet Digital PCR (ddPCR™) System ³ (Post vial; 9 replicates)	Report results	3.75 × 10 ⁸ genome equivalents/mL
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. ²Atlas, Ronald M. <u>Handbook of Microbiological Media</u>. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

³The GE value reported is obtained using Qiagen RNA extraction kit (Cat 52904).

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.

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