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: 70033548

Manufacturing Date: 24FEB2020

TEST	SPECIFICATIONS	RESULTS
Pre-Inactivation Titer by TCID ₅₀ Assay in Vero E6 Cells ¹	Report results	1.6 × 10 ⁵ TCID ₅₀ per mL in 11 days at 37°C and 5% CO ₂
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
Viral Genome Copy Number		
Genome Copy Number Using BioRad QX200 Droplet Digital PCR (ddPCR™) System ³ (Post vial; 6 replicates)	Report results	1.16 × 10 ⁹ genome equivalents per 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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07 APR 2020

Program Manager or designee, ATCC Federal Solutions

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