

SARS-Related Coronavirus 2, Isolate USA-WA1/2020, Gamma-Irradiated

Catalog No. NR-52287

Product Description:

NR-52287 lot 70033322 consists of a crude preparation of cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells (Vero E6; ATCC® CRL-1586™) infected with severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), isolate USA-WA1/2020 (NRC-52281 lot 70033641) that was gamma-irradiated (5×10^6 RADs) on dry ice.

Lot: 70033322

Manufacturing Date: 27FEB2020

TEST	SPECIFICATIONS	RESULTS
Pre-Inactivation Titer by TCID₅₀ Assay in Vero E6 cells¹	Report results	2.8×10^5 TCID ₅₀ per mL at 11 days at 37°C and 5% CO ₂
Pre-Inactivation 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
Pre-Inactivation 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
Genome Copy Number Using BioRad QX200 Droplet Digital PCR (ddPCR™) System³ (Post vial; 8 replicates)	Report results	1.7×10^9 genome equivalents/mL
Virus Inactivation (Post-Inactivation) 10% of total bulk irradiated preparation was plated on Vero E6 cells for 14 days at 37°C and 5% CO ₂ and evaluated for cytopathic effect and presence of viral RNA by qPCR assay ⁴	No viable virus detected	No viable virus 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.

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

⁴Performed at University of Texas Medical Branch, Galveston, Texas, USA and BEI Resources

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