

**SARS-Related Coronavirus 2, Isolate USA/CA\_CDC\_5574/2020, Heat Inactivated**

**Catalog No. NR-55245**

**Product Description:**

NR-55245 is a preparation of SARS-Related Coronavirus 2 (SARS-CoV-2), isolate USA/CA\_CDC\_5574/2020 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 NRC-54022 lot 70043446) was produced by infecting *Cercopithecus aethiops* kidney cells (Vero E6; ATCC® CCL-81™) in Eagle's Minimum Essential Medium (ATCC® 30-2003™) supplemented with 2% fetal bovine serum (ATCC® 30-2020™) for 5 days at 37°C with 5% CO<sub>2</sub>. Titer of spin clarified NRC-54022 was 5.0 × 10<sup>4</sup> TCID<sub>50</sub> per mL by TCID<sub>50</sub> assay in Vero E6 cells, determined by cytopathic effect in 5 days at 37°C with 5% CO<sub>2</sub>, and sterility of the preparation was confirmed.<sup>1</sup>

**Lot: 70043111**

**Manufacturing Date: 24MAR2021**

TEST	SPECIFICATIONS	RESULTS
<b>Genome Copy Number Using BioRad QX200 Droplet Digital PCR (ddPCR™) System<sup>2</sup></b>	Report results	3.24 × 10 <sup>8</sup> genome equivalents per mL <sup>3</sup>
<b>Virus Inactivation</b> 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 <sup>4</sup>	No viable virus detected	No viable virus detected

<sup>1</sup>The Tissue Culture Infectious Dose 50% (TCID<sub>50</sub>) is the 50% infectious endpoint in cell culture. The TCID<sub>50</sub> 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% (LD<sub>50</sub>) is expected to kill half of the animals exposed. A reciprocal of the dilution required to yield the TCID<sub>50</sub> provides a measure of the titer (or infectivity) of a virus preparation.

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

<sup>3</sup>Two vials of NR-55245 lot 70043111 were used for RNA extraction. Average of the results obtained from nine replicates from one vial and eight replicates from the other is reported.

<sup>4</sup>The inactivated virus preparation was plated on Vero E6 cells and incubated for 14 days at 37°C and 5% CO<sub>2</sub>; 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% CO<sub>2</sub>. Samples from both passages were also tested by qPCR at the end of day 14 of the passages.

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