

**SARS-Related Coronavirus 2, Wuhan-Hu-1 Spike-Pseudotyped Lentivirus, Luc2/ZsGreen**

**Catalog No. NR-53818**

**Product Description:**

A pseudotyped lentivirus from severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), Wuhan-Hu-1 (GenBank: [NC\\_045512](https://www.ncbi.nlm.nih.gov/nuccore/NC_045512)) was produced by transfection of purified plasmids (from BEI Resources NRC-52516, NRC-52517, NRC-52518, NRC-52519 and NRC-53742) in human embryonic kidney HEK293T cells (ATCC® CRL-3216) and grown for 2 days at 37°C in an aerobic atmosphere with 5% CO<sub>2</sub>. The supernatant was harvested, filtered with a 0.45 µm filter and purified by 20% sucrose cushion. The lentiviral particles were resuspended in DMEM supplemented with 10% heat-inactivated fetal bovine serum. NR-53818 expresses a C-terminally truncated S glycoprotein, which increases titers of viral particles pseudotyped with SARS-CoV-2 S glycoprotein, as well as synthetic firefly luciferase (Luc2) and synthetic *Zoanthus* sp. green fluorescent protein (ZsGreen1).

**Lot: 70042784**

**Manufacturing Date: 11MAR2021**

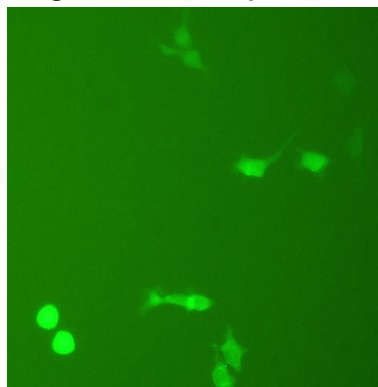
TEST	SPECIFICATIONS	RESULTS
<b>Identification by Infectivity in HEK293-hACE2 Cells (BEI Resources NR-52511)</b>	GFP expression	GFP expression (Figure 1)
<b>Titer by TCID<sub>50</sub> Assay in HEK293-hACE2 Cells by Luciferase Assay<sup>1,2</sup></b> (2 days at 37°C with 5% CO <sub>2</sub> )	> 10 <sup>5</sup> relative luciferase units	4.99 × 10 <sup>5</sup> relative luciferase units
<b>Sterility (21-day incubation)</b> Harpo's HTYE broth, 37°C and 26°C, aerobic <sup>3</sup> 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, aerobic	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
<b>Mycoplasma Contamination</b> 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

<sup>1</sup>The Tissue Culture Infectious Dose 50% (TCID<sub>50</sub>) endpoint 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>0.25 µL NR-53818 per well

<sup>3</sup>Atlas, Ronald M. *Handbook of Microbiological Media*. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

**Figure 1: GFP Expression**



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