

**Dengue Virus Type 2 (DEN-2), New Guinea C (NGC)**

**Catalog No. NR-84**

(Derived from ATCC® VR-1584™)

**Product Description:** DEN-2, NGC was isolated in 1944 from the serum of a febrile man in New Guinea.

**Lot<sup>1</sup>: 70019561**

**Manufacturing Date: 28NOV2018**

TEST	SPECIFICATIONS	RESULTS
Identification by Infectivity in LLC-MK2 Derivative Cells <sup>2</sup>	Cell rounding and detachment	Cell rounding and detachment
Identification by Indirect Fluorescent Antibody (IFA) Assay <sup>3</sup>	Fluorescence observed	Fluorescence observed
Sequencing of Species-Specific Region (810 nucleotides)	≥ 99% identity with DEN-2, NGC (GenBank: KM204118)	99.8% identity with DEN-2, NGC (GenBank: KM204118)
Titer by TCID <sub>50</sub> Assay <sup>4,5</sup> in LLC-MK2 Derivative Cells <sup>2</sup> by IFA <sup>3</sup>	Report results	1.6 × 10 <sup>6</sup> TCID <sub>50</sub> per mL
Amplification of DEN-2 Sequence by RT-PCR	~ 970 base pair amplicon	~ 970 base pair amplicon
<b>Sterility (21-day incubation)</b> Harpo's HTYE broth <sup>6</sup> , 37°C and 26°C, aerobic Trypticase soy broth, 37°C and 26°C, aerobic Sabouraud broth, 37°C and 26°C, aerobic Blood agar, 37°C, aerobic Blood agar, 37°C, anaerobic Thioglycollate broth, 37°C, anaerobic DMEM with 10% FBS, 37°C and 5% CO <sub>2</sub>	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>Lot 70019561 of NR-84 was produced by infecting LLC-MK2 derivative cells with BEI Resources NR-84 lot 62905413 and incubating in Eagle's Minimum Essential Medium containing Earle's Balanced Salt Solution, non-essential amino acids, 2 mM L-glutamine, 1 mM sodium pyruvate and 1.5 g/L of sodium bicarbonate (ATCC® 30-2003) supplemented with 2% fetal bovine serum (ATCC® 30-2020) for 8 days at 37°C with 5% CO<sub>2</sub>.

<sup>2</sup>*Macaca mulatta* kidney epithelial cells (LLC-MK2 derivative cells; ATCC® CCL-7.1™)

<sup>3</sup>Virus presence detected using Anti-Dengue Virus Type II, clone 3H5-1 Antibody (Millipore MAB8702).

<sup>4</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>5</sup>Assay plates were incubated 7 days at 37°C and 5% CO<sub>2</sub>.

<sup>6</sup>Atlas, Ronald M. *Handbook of Microbiological Media*. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

/Heather Couch/

Heather Couch

19 MAR 2019

Program Manager or designee, ATCC Federal Solutions

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

ATCC® is a trademark of the American Type Culture Collection.

You are authorized to use this product for research use only. It is not intended for human use.

