

Powassan Virus, T18-23-81

Catalog No. NR-51183

Product Description:

Powassan virus (POWV), T18-23-81 was isolated from the environment from a tick (*Ixodes cookei*) on *Marmota* spp. on July 25, 1981, in Ontario, Canada. NR-51183 lot 70015200 was produced by infecting *Chlorocebus* (former *Cercopithecus*) *aethiops* kidney epithelial cells (Vero; ATCC® CCL-81™) and incubating in Eagle's Minimum Essential Medium (ATCC® 30-2003™) supplemented with 2% fetal bovine serum (ATCC® 30-2020™) for 7 days at 37°C with 5% CO₂.

Passage History:

SM(1)/V(3) (Prior to deposit at BEI Resources/BEI Resources); SM = Suckling mouse; V = Vero cells

Lot: 70015200

Manufacturing Date: 24JAN2020

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TEST	SPECIFICATIONS	RESULTS
Identification by Infectivity in Vero Cells	Cell rounding and detachment	Cell rounding and detachment
Sequencing of Species-Specific Region NS5 protein gene (~ 2710 nucleotides)	≥ 98% identity with POWV, T18-23-81, (GenBank: AF310943)	99.8% identity with POWV, T18-23-81 (GenBank: AF310943)
Titer by TCID₅₀ Assay in Vero Cells by Cytopathic Effect¹ (10 days at 37°C with 5% CO ₂)	Report results	2.8 × 10 ⁷ TCID ₅₀ /mL
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, 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
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

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.

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