b|e|i RESOURCES
SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-49913

Mayaro Virus, TRVL 4675

Catalog No. NR-49913

Product Description: Mayaro virus (MAYV), TRVL 4675 was isolated from the serum of a human in Mayaro County, Trinidad on August 23, 1954. Vial contains cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells[1] infected with MAYV, TRVL 4675.

Passage History: SM13V1/V7 (Prior to deposit at BEI Resources/BEI Resources); SM = Suckling mice; V = Vero cells[1]

Lot[2,3]: 70017163 **Manufacturing Date: 13JUL2018**

TEST	SPECIFICATIONS	RESULTS
Identification by Infectivity in Vero cells[1]	Cell rounding and detachment	Cell rounding and detachment
Sequencing of Species-Specific Region (~ 760 nucleotides)	≥ 98% identity with MAYV, TRVL 4675 (GenBank: AF339482.1)	100% identity with MAYV, TRVL 4675 (GenBank: AF339482.1)
Titer by $TCID_{50}$ Assay[4,5] in Vero cells[1] by Cytopathic Effect	Report results	1.6×10^8 $TCID_{50}$ per mL
Amplification of Mayaro Virus Sequence by RT-PCR	~ 980 base pair amplicon	~ 980 base pair amplicon
Sterility (21-day incubation)		
Harpo's HTYE broth[6], 37°C and 26°C, aerobic	No growth	No growth
Trypticase soy broth, 37°C and 26°C, aerobic	No growth	No growth
Sabouraud broth, 37°C and 26°C, aerobic	No growth	No growth
Blood agar, 37°C, aerobic	No growth	No growth
Blood agar, 37°C, anaerobic	No growth	No growth
Thioglycollate broth, 37°C, anaerobic	No growth	No growth
DMEM with 10% FBS, 37°C and 5% CO_2	No growth	No growth
Mycoplasma Contamination		
Agar and broth culture (14-day incubation at 37°C)	None detected	None detected
DNA detection by PCR of extracted Test Article nucleic acid	None detected	None detected

[1]Vero: ATCC® CCL-81™
[2]The first three virus passages at BEI Resources were performed in the presence of Mycoplasma Removal Reagent (MP Biomedicals 30-500-44) in order to remove contaminating mycoplasma.
[3]Grown 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 2 days at 37°C with 5% CO_2
[4]The Tissue Culture Infectious Dose 50% ($TCID_{50}$) endpoint is the 50% infectious endpoint in cell culture. The $TCID_{50}$ 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_{50}) is expected to kill half of the animals exposed. A reciprocal of the dilution required to yield the $TCID_{50}$ provides a measure of the titer (or infectivity) of a virus preparation.
[5]5 days at 37°C and 5% CO_2
[6]Atlas, Ronald M. Handbook of Microbiological Media. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

/Heather Couch/
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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.

Support Provided by NIAID

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