Product Information Sheet for NR-49911

Mayaro Virus, Guyane

Catalog No. NR-49911

For research use only. Not for human use.

Contributor:
World Reference Center for Emerging Viruses and Arboviruses, University of Texas Medical Branch, Galveston, Texas, USA

Manufacturer:
BEI Resources

Product Description:
Virus Classification: *Togaviridae*, *Alphavirus*
Species: Mayaro virus
Strain/Isolate: Guyane
Original Source: Mayaro virus (MAYV), Guyane was isolated from a human in Guyane, French Guiana on February 28, 1996,[1-3] and contributed to WRCEVA by A. Talarmin, of the Institut Pasteur de la Guyane, Cayenne, French Guiana.

MAYV is a New World alphavius that is the etiologic agent of Mayaro fever, an acute febrile illness sometimes accompanied by severe and persistent arthritis. MAYV was first isolated in Trinidad in 1954, and there have been sporadic outbreaks of Mayaro fever in South America since. The enzootic transmission cycle of MAYV is not fully understood, but the occurrence of relatively large outbreaks of Mayaro fever[4,5] and the competence of *Aedes* mosquitoes for transmission of MAYV[6] suggest the potential for an urban human-mosquito-human transmission cycle to emerge.

There are two distinct genotypes of MAYV, D and L. Genotype D includes viruses isolated from all countries where MAYV has been detected, while genotype L strains have been found only in Brazil.[3,4] Guyane is a D genotype virus.

Material Provided:
Each vial contains approximately 1 mL of cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells (Vero; ATCC® CCL-81™) infected with MAYV, Guyane.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:
NR-49911 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:
Host: *Cercopithecus aethiops* kidney epithelial cells (Vero; ATCC® CCL-81™)
Growth Medium: 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 supplemented with 2% fetal bovine serum, or equivalent
Infection: Cells should be 85% to 95% confluent
Incubation: 2 to 5 days at 37°C and 5% CO_2
Cytopathic Effect: Cell rounding and detachment

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH, as part of the WRCEVA program: Mayaro Virus, Guyane, NR-49911."

Biosafety Level: 2
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. Tesh, R. B., Personal Communication.
2. Talarmin, A., et al. "Mayaro Virus Fever in French Guiana: Isolation, Identification, and Seroprevalence." Am. J. Trop. Med. Hyg. 59 (1998): 452-456. Pubmed: 9749643.
3. Powers, A. M., et al. "Genetic Relationships among Mayaro and Una Viruses Suggest Distinct Patterns of Transmission." Am. J. Trop. Med. Hyg. 75 (2006): 461-469. Pubmed: 16968922.
4. Auguste, A. J., et al. "Evolutionary and Ecological Characterization of Mayaro Virus Strains Isolated during an Outbreak, Venezuela, 2010." Emerg. Infect. Dis. 21 (2015): 1742-1750. Pubmed: 26401714.
5. LeDuc, J. W., F. Pinheiro, and A. Travassos da Rosa. "An Outbreak of Mayaro Virus Disease in Belterra, Brazil. II. Epidemiology." Am. J. Trop. Med. Hyg. 30 (1981): 682-688. Pubmed: 6266264.
6. Long, K. C., et al. "Experimental Transmission of Mayaro Virus by *Aedes aegypti*." Am. J. Trop. Med. Hyg. 85 (2011): 750-757. Pubmed: 21976583.

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