Product Information Sheet for NR-49799

Yellow Fever Virus, SVM 3-18-09

Catalog No. NR-49799

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: *Flavivirus*, *Flaviviridae*
Species: Yellow fever virus
Strain/Isolate: SVM 3-18-09
Original Source: Yellow fever virus (YFV), SVM 3-18-09 was isolated from a monkey (*Alouatta* sp.) in Maracas, Trinidad on March 18, 2009 and contributed to WRCEVA by Albert Jonathan Auguste of the University of the West Indies at Saint Augustine, Trinidad and Tobago.[1] A closely related contemporaneous YFV isolate, TVP11767, has been described.[2] In order to remove contaminating mycoplasma, the second viral passage at BEI Resources was performed by lipofectamine-mediated transfection of extracted viral RNA.

YFV is a mosquito-borne virus, which circulates in natural transmission cycles between mosquitoes and temporary amplifiers, humans and monkeys. Yellow fever (YF) is endemic in tropical regions of Africa and South America and poses a serious health risk to travelers to these areas.[3,4] Vector-control strategies that were once successful for elimination of YFV from many regions have faltered, leading to reemergence of the disease.[5] Currently, there is no effective drug treatment for YF; however, live-attenuated 17D YF vaccines have demonstrated high rates of effectiveness and good safety profiles.[6-8]

Material Provided:
Each vial contains approximately 1 mL of cell lysate and supernatant from *Aedes albopictus* mosquito larval epithelial cells (clone C6/36; ATCC® CRL-1660™) infected with YFV, SVM 3-18-09.

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

Packaging/Storage:
NR-49799 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: *Aedes albopictus* clone C6/36 cells (ATCC® CRL-1660™)
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 60% to 80% confluent
Incubation: 5 to 7 days at 28°C and 5% CO_2
Cytopathic Effect: Cell enlargement, rounding and detachment may or may not be observed; confirmation of infectivity by immunofluorescence is recommended.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH, as part of the WRCEVA program: Yellow Fever Virus, SVM 3-18-09, NR-49799."

Biosafety Level: 3
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:

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2. Auguste, A. J., et al. "Yellow Fever Virus Maintenance in Trinidad and Its Dispersal throughout the Americas." J. Virol. 84 (2010): 9967-9977. PubMed: 20631128.
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4. Bryant, J. E., E. C. Holmes, and A. D. T. Barrett. "Out of Africa: A Molecular Perspective on the Introduction of Yellow Fever Virus into the Americas." PLoS Pathog. 3 (2007): e75. PubMed: 17511518.
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7. Monath, T. P., et al. "Yellow Fever 17D Vaccine Safety and Immunogenicity in the Elderly." Hum. Vaccin. 1 (2005): 207–214. PubMed: 17012867.
8. Pugachev, K. V., F. Guirakhoo, and T. P. Monath. "New Developments in Flavivirus Vaccines with Special Attention to Yellow Fever." Curr. Opin. Infect. Dis. 18 (2005): 387–394. PubMed: 16148524.

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