Product Information Sheet for NR-50071

Yellow Fever Virus, INHRR 7a-05

Catalog No. NR-50071

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: INHRR 7a-05
Original Source: Yellow fever virus (YFV), INHRR 7a-05 was isolated from a human in Portuguesa, Venezuela in 2005 and contributed to WRCEVA by Rosa Hernandez of the Instituto Nacional de Higiene "Rafael Rangel" (INHRR), Ciudad Universitaria, Caracas, Venezuela.[1] A closely related contemporaneous YFV isolate, 7A, 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, INHRR 7a-05.

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

Packaging/Storage:
NR-50071 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 90% 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, INHRR 7a-05, NR-50071."

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. "Enzootic Transmission of Yellow Fever Virus, Venezuela." Emerg. Infect. Dis. 21 (2015): 99-102. PubMed: 25531105.
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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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