Dengue Virus Type 2, PR 06-65-361

Catalog No. NR-49750

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: Dengue virus type 2
Strain/Isolate: PR 06-65-361
Original Source: Dengue virus type 2 (DEN-2), PR 06-65-361 was isolated from a human in Puerto Rico in 2006,[1] and contributed to WRCEVA by Wellington Sun and Jorge Munoz-Jordan of the Field Dengue Laboratory, Centers for Disease Control and Prevention, Puerto Rico.

Dengue virus causes the most common vector-borne viral disease of humans, with over 50 million cases in tropical and subtropical regions each year.[2] The disease is now endemic in over 110 countries in the world, with Southeast Asia and the Western Pacific being the most seriously affected. Dengue disease is caused by one of four closely related, but antigenically distinct serotypes (designated DEN-1 to -4).[2] Infections produce a spectrum of clinical illness ranging from a nonspecific viral syndrome to severe and fatal hemorrhagic disease.[3,4] Humans are the major host of dengue virus, with *Aedes* mosquitoes as the principal vectors.

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 DEN-2, PR 06-65-361.

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

Packaging/Storage:
NR-49750 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 80% to 90% confluent
Incubation: 8 to 14 days at 28°C and 5% CO_2
Cytopathic Effect: Cell rounding and detachment. Confirmation of viral replication 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: Dengue Virus Type 2, PR 06-65-361, NR-49750."

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. Holmes, E. C. and S. S. Twiddy. "The Origin, Emergence and Evolutionary Genetics of Dengue Virus." Infect. Genet. Evol. 3 (2003): 19-28. PubMed: 12797969.
3. Malavige, G. N., et al. "Dengue Viral Infections." Postgrad. Med. J. 80 (2004): 588-601. PubMed: 15466994.
4. Kao, C. L., et al. "Laboratory Diagnosis of Dengue Virus Infection: Current and Future Perspectives in Clinical Diagnosis and Public Health." J. Microbiol. Immunol. Infect. 38 (2005): 5-16. PubMed: 15692621.

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