Chikungunya Virus, DHS4263

Catalog No. NR-50055

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: Chikungunya virus
Strain/Isolate: DHS4263
Original Source: Chikungunya virus (CHIKV), DHS4263 was isolated by the California Department of Public Health from a traveler infected in India during the epidemic of 2006,[1,2] and contributed to WRCEVA by Aaron C. Brault of the Department of Pathology, Microbiology and Immunology, School of Veterinary Medicine, University of California, Davis, California, USA. The complete genomic sequence of CHIKV, DHS4263 has been determined (GenBank: HM045794).[3,4]

Chikungunya fever is a febrile illness often accompanied by relapsing and incapacitating polyarthralgia. In recent years, CHIKV has spread widely throughout Africa and Asia resulting in morbidity in millions of infected individuals. There are currently no recognized antiviral therapies or human vaccines with which to control infections due to CHIKV.[5]

Material Provided:
Each vial contains approximately 1 mL of cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells (Vero 76, clone E6; ATCC® CRL-1586™) infected with Chikungunya virus, DHS4263.

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

Packaging/Storage:
NR-50055 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 76, clone E6; ATCC® CRL-1586™)
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: 2 to 7 days at 37°C and 5% CO_2
Cytopathic Effect: Refractile 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: Chikungunya Virus, DHS4263, NR-50055."

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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BEI Resources
www.beiresources.org

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References:

1. Chen, C.-I., et al. "Comparative Pathogenesis of Epidemic and Enzootic Chikungunya Viruses in a Pregnant Rhesus Macaque Model." Am. J. Trop. Med. Hyg. 83 (2010): 1249-1258. PubMed: 21118930.
2. Lanciotti, R.S., et al. "Chikungunya Virus in US Travelers Returning from India, 2006." Emerg. Infect. Dis. 13 (2007): 764-767. PubMed: 17553261.
3. Volk, S. M., et al. "Genome-Scale Phylogenetic Analyses of Chikungunya Virus Reveal Independent Emergences of Recent Epidemics and Various Evolutionary Rates." J. Virol. 84 (2010): 6497-6504. PubMed: 20410280.
4. Volk, S. M., et al. Department of Pathology, University of Texas Medical Branch, Galveston, Texas, USA. Direct submission.
5. Gould, E. A., et al. "Understanding the Alphaviruses: Recent Research on Important Emerging Pathogens and Progress Towards Their Control." Antiviral Res. 87 (2010): 111-124. PubMed: 19616028.

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