Product Information Sheet for NR-56523

Chikungunya Virus, 181/25

Catalog No. NR-56523

For research use only. Not for use in humans.

Contributor:
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Manufacturer:
BEI Resources

Product Description:
Virus Classification: *Togaviridae*, *Alphavirus*
Species: Chikungunya virus
Strain/Isolate: 181/25
Original Source: Chikungunya virus (CHIKV), 181/25 is a live-attenuated derivative of strain AF15561, which was originally isolated from a human in Thailand in 1962.[1,2,3] Attenuation of 181/25 is mediated by two amino acid substitutions in the E2 glycoprotein.[4]
Comments: NR-56523 replaces NR-13222

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 vaccines with which to control infections due to CHIKV.[5]

Material Provided:
Each vial contains approximately 1.0 mL of cell lysate and supernatant from *Cercopithecus aethiops* (African green monkey) kidney epithelial cells (Vero E6) infected with CHIKV, 181/25.

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

Packaging/Storage:
NR-56523 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* (African green monkey) kidney epithelial cells (Vero E6; ATCC CRL-1586™)
Growth Medium: Dulbecco's Modified Eagle's medium (DMEM; ATCC® 30-2002) supplemented with 2% irradiated fetal bovine serum (ATCC® 30-2020), or equivalents
Infection: Cells should be 70% to 80% confluent
Incubation: 4 to 8 days at 37°C and 5% CO_2
Cytopathic Effect: Cell rounding and sloughing

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Chikungunya Virus, 181/25, NR-56523."

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. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:
1. Harrison, V. R., et al. "Production and Evaluation of a Formalin-Killed Chikungunya Vaccine." J. Immunol. 107 (1971): 643-647. PubMed: 4999088.
2. Levitt, N. H., et al. "Development of an Attenuated Strain of Chikungunya Virus for Use in Vaccine Production." Vaccine 4 (1986): 157-162. PubMed: 3020820.

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3. Edelman, R., et al. "Phase II Safety and Immunogenicity Study of Live Chikungunya Virus Vaccine TSI-GSD-218." Am. J. Trop. Med. Hyg. 62 (2000): 681-685. PubMed: 1130405.
4. Gorchakov, R., et al. "Attenuation of Chikungunya Virus Vaccine Strain 181/Clone 25 is Determined by Two Amino Acid Substitutions in the E2 Envelope Glycoprotein." J. Virol. (2012): 6084-6096. PubMed: 22457519.
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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