

Genomic RNA from Zika Virus, PRVABC59

Catalog No. NR-50244

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Contributor:

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Manufacturer:

BEI Resources

Product Description:

Genomic RNA was isolated from a preparation of cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells (Vero 76, clone E6: ATCC® CRL-1586™) infected with Zika virus (ZIKV), PRVABC59.

ZIKV, PRVABC59 was isolated from the blood of a human in Puerto Rico in December 2015.¹ The complete genomic sequence of the ZIKV, PRVABC59 serum isolate was previously determined (GenBank: [KU501215](#)).^{1,2} The complete coding sequence of BEI Resources ZIKV, PRVABC59 (NR-50240 lot 64112564) has also been determined (GenBank: [KX087101](#)).³ The E protein of the tissue culture grown ZIKV PRVABC59 isolate (GenBank: KX087101) has a valine to leucine mutation at position 330 relative to the original patient serum ZIKV PRVABC59 isolate (GenBank: KU501215). The ZIKV, PRVABC59 E-V330L mutant is shown to be less pathogenic in mice, with delayed mortality and decreased viral dissemination to eye and brain as compared to the original ZIKV PRVABC59 serum isolate.⁴

NR-50244 has been qualified for PCR applications by amplification of an approximately 1000 nucleotide sequence. Recommended dilutions for successful RT-PCR amplification are indicated on the Certificate of Analysis for each lot.

Material Provided:

Each vial contains 100 µL of viral genomic RNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 7.0). The viral genomic RNA is in a background of cellular nucleic acid and carrier RNA. The vial should be centrifuged prior to opening.

Packaging/Storage:

NR-50244 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen on dry ice and should be stored at -60°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

Citation:

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Genomic RNA from Zika Virus, PRVABC59, NR-50244.”

Biosafety Level: 1

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. Lanciotti, R. S., et al. “Phylogeny of Zika Virus in Western Hemisphere, 2015.” Emerg. Infect. Dis. 22 (2016): 933-935. PubMed: 27088323.
2. Lanciotti, R. S. and M. Holodniy. Diagnostic and Reference Laboratory, Arbovirus Diseases Branch, Centers for Disease Control and Prevention, 3150 Rampart Road, Fort Collins, Colorado 80521, USA. Direct submission.
3. Shabman, R., et al. J. Craig Venter Institute, 9704 Medical Center Drive, Rockville, Maryland 20850, USA. Direct submission.

4. Duggal, N. K., et al. "Mutations Present in a Low-Passage Zika Virus Isolate Result in Attenuated Pathogenesis in Mice." *Virology* 530 (2019): 19-26. PubMed: 30763872.

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