

Genomic RNA from Zika Virus, BeH819015, Recombinant Infectious Clone

Catalog No. NR-51223

For research use only. Not for human use.

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), BeH819015 recombinant infectious clone (also known as BR15^{MC}).^{1,2} ZIKV, BeH819015 recombinant infectious clone is a molecular clone of ZIKV, BeH819015 that was assembled from four synthetic overlapping fragments corresponding to the full-length genomic RNA using the reverse genetic method designated ISA (Infectious-Subgenomic-Amplicons). The 5'-untranslated region (5'-UTR) is derived from clone MR766^{MC} and the 3'-untranslated region (3'-UTR) from a contemporaneous clinical isolate of ZIKV. ZIKV, BeH819015 was isolated in July 2015 from the blood of a human in Belém, Pará State, Brazil.¹ The complete genomic sequence of ZIKV, BeH819015 has been determined (GenBank: [KU365778](https://www.ncbi.nlm.nih.gov/nuclseq/KU365778)).

NR-51223 has been qualified for PCR applications by amplification of approximately 1080 base pairs of the NS3-NS4 polyprotein gene. Recommended dilutions for successful RT-PCR amplification are indicated on the Certificate of Analysis for each lot.

Material Provided:

Each vial contains approximately 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-51223 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, BeH819015, Recombinant Infectious Clone, NR-51223."

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. Bos, S., et al. "The Structural Proteins of Epidemic and Historical Strains of Zika Virus Differ in their Ability to Initiate Viral Infection in Human Host Cells." *Virology* 516 (2018): 265-273. PubMed: 29395111.
2. Gadea, G., et al. "A Robust Method for the Rapid Generation of Recombinant Zika Virus Expressing the

GFP Reporter Gene." Virology 497 (2016): 157-162.
PubMed: 27471954.

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