Purified Zika Virus, PRVABC59

Catalog No. NR-50684

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Manufacturer:
BEI Resources

Product Description:

**Virus Classification:** Flaviviridae, Flavivirus  
**Species:** Zika virus  
**Strain/Isolate:** PRVABC59  
**Original Source:** Zika virus (ZIKV), PRVABC59 was isolated from the blood of a human in Puerto Rico in December 2015.¹  
**Comments:** NR-50684 was prepared by inoculation of *Cercopithecus aethiops* kidney epithelial cells with ZIKV, PRVABC59 (BEI Resources NR-50240). The virus was purified from clarified cell lysate and supernatant by precipitation with PEG6000 and centrifugation through a 30% sucrose cushion. The complete genomic sequence of ZIKV, PRVABC59 serum isolate was previously determined (GenBank: KX087101).¹² The complete coding sequence of BEI Resources NR-50240 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

**Material Provided:**
Each vial contains approximately 0.5 mL of purified ZIKV, PRVABC59 in NTE buffer (150 mM NaCl, 50 mM Tris-Hcl, 1 mM EDTA), pH 7.0.

**Packaging/Storage:**
NR-50684 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 and 1 mM sodium pyruvate supplemented with 2% fetal bovine serum, or equivalent
- **Infection:** Cells should be 60% to 80% confluent; thaw virus rapidly in a 37°C water bath; adsorb diluted virus to cells for one hour at 37°C
- **Incubation:** 5 to 11 days at 37°C and 5% CO₂
- **Cytopathic Effect:** Refractile cell rounding and detachment

**Biosafety Level:** 2


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References:
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.

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