

Kunjin Virus, MRM 16

Catalog No. NR-51653

For research use only. Not for human use.

Contributor:

Brandy Russell, Centers for Disease Control and Prevention, Division of Vector Borne Diseases, Fort Collins, Colorado, USA

Manufacturer:

BEI Resources

Product Description:

Virus Classification: *Flaviviridae*, *Flavivirus*

Species: Kunjin Virus

Strain/Isolate: MRM 16

Original Source: Kunjin virus (KUNV), MRM 16 was isolated from mosquito (*Culex annulirostris*) in April 1960 in Australia.^{1,2}

Comments: The complete genome of KUNV, MRM 16 has been sequenced (GenBank: [KX394396](https://www.ncbi.nlm.nih.gov/nuccore/KX394396)).

KUNV is an arthropod-borne virus which circulates in natural transmission cycles between primarily mosquitoes and birds, with humans and horses as incidental hosts.² Earlier thought to be closely related to West Nile virus (WNV), KUNV was reclassified as a subtype of WNV and groups in clade 1b within the lineage I WNVs.^{3,4} The virus was isolated in Australia and is associated with mild and rare disease in humans and horses.⁴ Clinical symptoms most commonly associated with infection with KUNV include febrile illness or mild encephalitis.^{4,5}

Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells infected with KUNV, MRM 16.

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

Packaging/Storage:

NR-51653 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 E6; ATCC® CRL-1586™)

Growth Medium: Dulbecco's Modified Eagle's Medium modified to contain 4 mM L-glutamine, 4500 mg/L glucose, 1 mM sodium pyruvate, and 1.5 g/L sodium bicarbonate supplemented with 2% fetal bovine serum, or equivalent

Infection: Cells should be 80% to 90% confluent

Incubation: 3 to 6 days at 37°C and 5% CO₂

Cytopathic Effect: Cell rounding and sloughing

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Kunjin Virus, MRM 16, NR-51653."

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. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

References:

1. Russell, B., Personal Communication.
2. Poidinger, M., R. A. Hall and J. S. Mackenzie. "Molecular Characterization of the Japanese Encephalitis Serocomplex of the *Flavivirus* Genus" *Virology* 218 (1996): 417–421. PubMed: 8610471.
3. Beasley, D. W., et al. "Mouse Neuroinvasive Phenotype of West Nile Virus Strains Varies Depending Upon Virus

- Genotypes." Virology 296 (2002): 17-23. PubMed: 12036314.
4. Prow, N. A. "The Changing Epidemiology of Kunjin Virus in Australia." Int. J. Environ. Res. Public Health 10 (2013): 6255-6272. PubMed: 24287851.
 5. Scherret, J. H., et al. "The Relationships Between West Nile and Kunjin Viruses." Emerg. Infect. Dis. 7 (2001): 697-705. PubMed: 11585535.

ATCC® is a trademark of the American Type Culture Collection.

