

Keystone Virus, B64-5587.05

Catalog No. NR-537

(Derived from ATCC® VR-722™)

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Contributor:

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Product Description:

Virus Classification: *Bunyaviridae*, *Orthobunyavirus*,
California encephalitis virus

Agent: Keystone virus

Strain/Isolate: B64-5587.05

Original Source: Isolated from engorged mosquitoes (*Aedes atlanticus tormentor*) trapped in 1964 in the Tampa Bay area of Florida^{1,2}

Comments: Keystone virus, B64-5587.05 was deposited at ATCC® in 1973 by Robert E. Shope, M.D., Director, Yale Arbovirus Research Unit, Yale University School of Medicine, New Haven, Connecticut. The complete nucleotide sequences of the small (S; GenBank: U12801)³ and medium (M; GenBank: AF123489)⁴ RNA segments of Keystone virus have been determined. The S RNA segment codes for both the nucleocapsid (GenPept: AAC54053)³ protein and a nonstructural protein (GenPept: AAC54054),³ while the M RNA segment codes for a polyprotein (GenPept: AAD53045).⁴

Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from African green monkey kidney (Vero) cells infected with Keystone virus, B64-5587.05.

Packaging/Storage:

NR-537 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. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:

Host: Vero cells (ATCC® CCL-81™)

Growth Medium: Minimum Essential Medium supplemented with 2% fetal bovine serum, 2 mM L-glutamine and 1 mM sodium pyruvate, or equivalent (lot-specific details are on the Certificate of Analysis)

Infection: Cells should be 80 to 90% confluent (not 100% confluent)

Incubation: 6 to 8 days at 37°C and 5% CO₂

Cytopathic Effect: Cell rounding and detachment

Citation:

Acknowledgement for publications should read "The following reagent was obtained through NIH Biodefense and Emerging

Infectious Research Resources Repository, NIAID, NIH: Keystone Virus, B64-5587.05, NR-537."

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. 4th ed. Washington, DC: U.S. Government Printing Office, 1999. HHS Publication No. (CDC) 93-8395. This text is available online at www.cdc.gov/od/ohs/biosfty/bmbl4/bmbl4toc.htm.

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References:

1. Bond, J. O. et al. "California Group Arboviruses in Florida and Report of a New Strain, Keystone Virus." Public Health Rep. 81 (1966): 607-613. PubMed: 4957255.
2. Lewis, A. L., et al. "Isolations of a California Group Arbovirus from Florida Mosquitoes." Am. J. Trop. Med. Hyg. 14 (1965): 451-455. PubMed: 14292752.

3. Bowen, M. D. et. al. "Determination and Comparative Analysis of the Small RNA Genomic Sequences of California Encephalitis, Jamestown Canyon, Jerry Slough, Melao, Keystone and Trivittatus Viruses (*Bunyaviridae*, Genus *Bunyavirus*, California Serogroup)." J. Gen. Virol. 76 (1995): 559–572. PubMed: 7897347.
4. Campbell, W. P. and C. Huang. "Sequence Comparisons of Medium RNA Segment among 15 California Serogroup Viruses." Virus Res. 61 (1999): 137–144. PubMed: 10475083.

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