Enterovirus Species A Type 71, Tainan/4643/1998

Catalog No. NR-471

For research use only. Not for use in humans.

Contributor:
National Cheng Kung University, Tainan, Taiwan

Manufacturer:
BEI Resources

Product Description:

- **Virus Classification:** Picornaviridae, Enterovirus
- **Species:** Enterovirus A
- **Type:** A71
- **Strain/Isolate:** Tainan/4643/98
- **Original Source:** Enterovirus species A type 71 (EV-A71), Tainan/4643/1998 was isolated in 1998 from a patient suffering from encephalomyelitis in Tainan, Taiwan. Tainan/4643/1998 has been sequenced (GenBank: AF304458).1
- **Comments:** The complete genome of EV-A71, Tainan/4643/1998 has been sequenced (GenBank: AF304458).2

EV-A71, a frequent cause of hand-foot-and-mouth disease, is an enterovirus which was first identified in 1969.3 EV-A71 can also cause a variety of severe neurological disorders, including aseptic meningitis, brainstem encephalitis and polioencephalitis-like paralysis. Most of the fatal cases occur in children less than 3 years of age. Since 1997, there has been a significant increase in EV-A71 epidemic activity throughout the Asia-Pacific region.4,5 The pathogenesis of EV-A71 infection, especially the central nervous system (CNS) involvement, is not yet clear.6,7 There is no effective antiviral treatment for severe EV-A71 infections and no vaccine is available.

EV-A71 is a small, non-enveloped, icosahedral enterovirus with a single-stranded ~ 7.5 kilobase RNA genome of positive polarity. The single open reading frame encodes a large polyprotein of ~ 2200 amino acids and is flanked by untranslated regions at the 5' and 3' ends.4

Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from human rhabdomyosarcoma (RD) cells infected with EV-A71, Tainan/4643/1998.

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

Packaging/Storage:

NR-471 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at -80°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:** Rhabdomyosarcoma cells (RD; ATCC® CCL-136™)
- **Growth Medium:** Eagle's Minimum Essential Medium (ATCC® 30-2003™) supplemented with 2% fetal bovine serum (ATCC® 30-2020™), or equivalent
- **Infection:** Cells should be approximately 80 to 90% confluent
- **Incubation:** 5 to 9 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: Enterovirus Species A Type 71, Tainan/4643/1998, NR-471.”

Biosafety Level: 2


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