

**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.<sup>1</sup>

Comments: The complete genome of EV-A71, Tainan/4643/1998 has been sequenced (GenBank: [AF304458](https://www.ncbi.nlm.nih.gov/nuccore/AF304458)).<sup>2</sup>

EV-A71, a frequent cause of hand-foot-and-mouth disease, is an enterovirus which was first identified in 1969.<sup>3</sup> EV-A71 can also cause a variety of severe neurological disorders, including aseptic meningitis, brainstem encephalitis and poliomyelitis-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.<sup>4,5</sup> The pathogenesis of EV-A71 infection, especially the central nervous system (CNS) involvement, is not yet clear.<sup>6,7</sup> 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.<sup>4</sup>

**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 -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: 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% CO<sub>2</sub>

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**

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. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see [www.cdc.gov/biosafety/publications/bmb15/index.htm](http://www.cdc.gov/biosafety/publications/bmb15/index.htm).

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**References:**

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