Enterovirus Species D Type 68, USA/WI/2009-23230

Catalog No. NR-51995

For research use only. Not for use in humans.

Contributor:
William Allan Nix, Polio and Picornavirus Laboratory Branch, Division of Viral Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia, USA

Manufacturer:
BEI Resources

Product Description:
Virus Classification: *Picornaviridae, Enterovirus*
Species: Enterovirus D
Type: D68
Strain/Isolate: USA/WI/2009-23230
Original Source: Enterovirus species D type 68 (EV-D68), USA/WI/2009-23230 was isolated in 2009 from a respiratory sample from a human subject in Wisconsin, USA. The subject was not suffering from acute flaccid myelitis (AFM). Comments: The complete genome of EV-D68, USA/WI/2009-23230 has been sequenced (GenBank: MN240506).

Enteroviruses are small non-enveloped viruses whose genome consists of a single strand of positive-sense RNA. EV-D68 was first identified in California in 1962 from cases of bronchiolitis and pneumonia and was rarely reported in the United States. Clusters of severe respiratory disease were reported to the Centers for Disease Control and Prevention beginning in August 2014. EV-D68 was identified from a high percentage of initial cases, and severe EV-D68 infections became widespread across the United States in August and September. These outbreaks were associated temporally with an increase in polio-like neurological disorder known as acute flaccid myelitis (AFM), with symptoms like dysneuria and muscle weakness, occurring predominantly in children. Information regarding causation between EV-D68 and AFM is still limited; however, rapidly accumulating clinical, immunological and epidemiological evidence points to EV-D68 as a major causative agent of AFM.

Material Provided:
Each vial contains approximately 1 mL of cell lysate and supernatant from rhabdomyosarcoma cells infected with EV-D68, USA/WI/2009-23230.

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

Packaging/Storage:
NR-51995 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: Dulbecco’s Modified Eagle’s Medium modified to contain 4 mM L-glutamine, 4500 mg per L glucose, 1 mM sodium pyruvate and 1500 mg per L of sodium bicarbonate supplemented with 2% fetal bovine serum, or equivalent
Infection: Cells should be approximately 80 to 90% confluent
Incubation: 2 to 6 days at 33°C and 5% CO₂
Cytopathic Effect: Cell rounding and sloughing

Citation:
Acknowledgment for publications should read “The following reagent was contributed by Division of Viral Diseases, Centers for Disease Control and Prevention for distribution through BEI Resources, NIAID, NIH: Enterovirus Species D Type 68, USA/WI/2009-23230, NR-51995.”

Biosafety Level: 2

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:**


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