Parechovirus A Type 3, US/MO-KC/2014/001

Catalog No. NR-51187

For research use only. Not for human use.

Contributor:
Rangaraj Selvarangan, Ph.D., Director, Clinical Microbiology and Virology Laboratory, Department of Pathology and Laboratory Medicine, Children's Mercy Hospital, Kansas City, Missouri, USA

Manufacturer:
BEI Resources

Product Description:
Virus Classification: *Picornaviridae*, *Parechovirus*
Species: Parechovirus A type 3
Strain/Isolate: US/MO-KC/2014/001
Original Source: Parechovirus A type 3 (PeV-3), US/MO-KC/2014/001 was isolated in 2014 from the cerebrospinal fluid of a less than 3-months-old child in Kansas City, Missouri, USA.[1]

PeV-3 are single-stranded, positive-sense RNA viruses. PeVs were originally classified as enteroviruses but later assigned to a separate genus *Parechovirus* within family *Picornaviridae*.[2-4] PeVs are increasingly detected worldwide as pathogens, particularly in infants and children, affecting the respiratory and gastrointestinal tract and the central nervous system.[5-7] To date, 19 PeV genotypes, PeV-1 to -19, have been identified based on phylogenetic analysis of viral protein 1 (VP1) sequences.[4] PeV-1 and -2 are the most commonly detected genotypes in respiratory and gastrointestinal infections whereas PeV-3 is most commonly recovered from cerebrospinal fluid.[4-7]

Material Provided:
Each vial contains approximately 1 mL of cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells (Vero; ATCC® CCL-81™) infected with PeV-3, US/MO-KC/2014/001.

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

Packaging/Storage:
NR-51187 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; ATCC® CCL-81™)
Growth Medium: Eagle's Minimum Essential Medium containing Earle's Balanced Salt Solution, non-essential amino acids, 2 mM L-glutamine, 1 mM sodium pyruvate and 1.5 g/L of sodium bicarbonate supplemented with 2% fetal bovine serum, or equivalent
Infection: Cells should be 60% to 80% confluent
Incubation: 8 to 15 days at 37°C and 5% CO_2
Cytopathic Effect: Cell rounding and sloughing

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Parechovirus A Type 3, US/MO-KC/2014/001, NR-51187."

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.

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References:

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2. Hyypiä, T., et al. "A Distinct Picornavirus Group Identified by Sequence Analysis." Proc. Natl. Acad. Sci. USA 89 (1992): 8847-8851. PubMed: 1528901.
3. Stanway, G., et al. "Molecular and Biological Characteristics of Echovirus 22, a Representative of a New Picornavirus Group." J. Virol. 68 (1994): 8232-8238. PubMed: 7966616.
4. Olijve, L., L. Jennings and T. Walls. "Human Parechovirus: An Increasingly Recognized Cause of Sepsis-Like Illness in Young Infants." Clin. Microbiol. Rev. 31 (2017): e00047-17. PubMed: 29142080.
5. van der Sanden, S., et al. "Prevalence of Human Parechovirus in the Netherlands in 2000 to 2007." J. Clin. Microbiol. 46 (2008): 2884–2889. PubMed: 18614653.
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7. Sharp, J., et al. "Human Parechovirus in Respiratory Specimens from Children in Kansas City, Missouri." J. Clin. Microbiol. 50 (2012): 4111-4113. PubMed: 23015672.

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