Human Parainfluenza Virus 3, NIH 47885

Catalog No. NR-3233

For research use only. Not for human use.

Contributor:
National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH), USA

Manufacturer:
BEI Resources

Product Description:
Virus Classification: *Paramyxoviridae, Respirovirus*
Species: Human parainfluenza virus 3 (also referred to as human respirovirus 3)
Strain/Isolate: NIH 47885 (equivalent to Wash/47885/57)
Original Source: NR-3233 is derived from NIAID catalog number V-323-002-020 at BEI Resources. Human parainfluenza virus 3 (HPIV3), NIH 47885 is the laboratory-adapted strain of HPIV3, Wash/47885/57.[1]
Comments: The complete genome of HPIV3, Wash/47885/57 has been constructed as a consensus of available individual and combined gene sequences.[2,3]

Human parainfluenza virus 3 (HPIV3) is an enveloped, negative-sense, single-stranded RNA virus of approximately 15000 base pairs, belonging to the family *Paramyxoviridae*.[4,5,6] HPIV3 causes numerous potentially life-threatening respiratory illnesses in infancy and childhood, including pneumonia, croup, bronchitis and bronchiolitis.[7] HPIV3 is lung-tropic and binds and replicates in the ciliated epithelial cells of the upper and lower respiratory tract.[6,7] Seasonal outbreaks of all HPIV types (1 to 4) are responsible for up to 75% of croup cases in children worldwide.[7,8]

Material Provided:
Each vial contains approximately 1 mL of cell lysate and supernatant from *Cercopithecus aethiops* kidney cells infected with HPIV3, NIH 47885.

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

Packaging/Storage:
NR-3233 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 cells (Vero E6; ATCC® CRL-1586™)
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 70% to 90% confluent
Incubation: 4 to 6 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: Human Parainfluenza Virus 3, NIH 47885, NR-3233."

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:
1. Palermo, L. M., et al. "Features of Circulating Parainfluenza Virus Required for Growth in Human Airway." mBio 7 (2016): doi: 10.1128/mBio.00235-16. PubMed: 26980833.

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2. Galinski, M. S. "Annotated Nucleotide and Protein Sequences for Selected *Paramyxoviridae*." In Kingsbury D.W. (ed.) The Paramyxoviruses. Plenum Press, New York (1991): 537-568.
3. Bailly, J. E., et al. "Sequence Determination and Molecular Analysis of Two Strains of Bovine Parainfluenza Virus Type 3 that are Attenuated for Primates." Virus Genes 20 (2000): 173-182. PubMed: 10872880.
4. Ohsawa, K., et al. "Genetic Characterization of Parainfluenza Virus 3 Derived from Guinea Pigs." J. Vet. Med. Sci. 60 (1998): 919-922. PubMed: 9764404.
5. Tappert, M. M., D. F. Smith and G. M. Air. "Fixation of Oligosaccharides to a Surface May Increase the Susceptibility to Human Parainfluenza Virus 1, 2, or 3 Hemagglutinin-Neuraminidase." J. Virol. 85 (2011): 12146-12159. PubMed: 21917945.
6. Shil, N. K., et al. "Inflammasome Antagonism by Human Parainfluenza Virus Type 3 C Protein." J. Virol. 92(2018): doi: 10.1128/JVI.01776-17. PubMed: 29187536.
7. Branche, A. R. and A. R. Falsey. "Parainfluenza Virus Infection." Semin. Respir Crit. Care Med. 37 (2016):538-554. PubMed: 27486735.
8. Swierkosz, E. M., et al. "Isolation and Characterization of a Naturally Occurring Parainfluenza 3 Virus Variant." J. Clin. Microbiol. 33(1995): 1839-1841. PubMed: 7665656.

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