

# Parainfluenza Virus type 2 (1241): sc-57958

## BACKGROUND

Human parainfluenza viruses belong to the paramyxovirus family and are pleomorphic viruses whose envelope is derived from the last host cell they infected. They comprise a group of four distinct serotypes of single-stranded RNA viruses. Human Parainfluenza Virus type 1 is the most common cause of croup and other upper and lower respiratory tract illnesses. Human Parainfluenza Virus type 2 infections usually follow type 1 infections and also cause croup, other upper and lower respiratory tract illnesses, and may cause aseptic meningitis and parotitis. Human Parainfluenza Virus type 2 forms filamentous particles in virus-infected, polarized epithelial cells. Human Parainfluenza Virus type 3 infections are associated with pneumonia as well as bronchiolitis and typically last longer than type 1 and 2 infections. Human Parainfluenza Virus type 4 is one of the rubulaviruses that has a V protein with a highly conserved cysteine-rich domain characteristic of paramyxovirus V proteins. It is the only paramyxovirus that cannot evade the IFN-induced antiviral responses.

## REFERENCES

1. De Vaux St Cyr, C. and Howe, C. 1966. Immunochemical study of Parainfluenza Virus (type 2) in amnion cells. *J. Bacteriol.* 91: 1911-1916.
2. Howe, C., Milliken, S.A. and Newcomb, E.W. 1970. Growth studies of Parainfluenza Virus (type 2). *Arch. Gesamte Virusforsch.* 29: 50-62.
3. Ito, Y., Tsurudome, M., Bando, H., Komada, H. and Nishio, M. 1990. Incomplete replication of human Parainfluenza Virus type 2 in mouse L929 cells. *Arch. Virol.* 108: 137-144.
4. Jantausch, B.A., Wiedermann, B.L. and Jeffries, B. 1995. Parainfluenza Virus type 2 meningitis and parotitis in an 11-year-old child. *South. Med. J.* 88: 230-231.
5. Nishio, M., Tsurudome, M., Kawano, M., Watanabe, N., Ohgimoto, S., Ito, M., Komada, H. and Ito, Y. 1996. Interaction between nucleocapsid protein (NP) and phosphoprotein (P) of human Parainfluenza Virus type 2: one of the two NP binding sites on P is essential for granule formation. *J. Gen. Virol.* 77: 2457-2463.
6. Skiadopoulos, M.H., Vogel, L., Riggs, J.M., Surman, S.R., Collins, P.L. and Murphy, B.R. 2002. The genome length of human Parainfluenza Virus type 2 follows the rule of six, and recombinant viruses recovered from non-polyhexameric-length antigenomic cDNAs contain a biased distribution of correcting mutations. *J. Virol.* 77: 270-279.
7. García García, M.L., Aguilar Ruiz, J., Echeverría Mayo, J.E., Calvo Rey, C., Pinto Fuentes, I., Ordoñas Gabin, M., Roman Riechmann, E. and Perez Breña, P. 2002. Parainfluenza Virus type 4 infections. *An. Esp. Pediatr.* 57: 116-120.
8. Nishio, M., Tsurudome, M., Ito, M. and Ito, Y. 2005. Human Parainfluenza Virus type 4 is incapable of evading the interferon-induced antiviral effect. *J. Virol.* 79: 14756-14768.

## SOURCE

Parainfluenza Virus type 2 (1241) is a mouse monoclonal antibody raised against Parainfluenza Virus type 2.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Parainfluenza Virus type 2 (1241) is recommended for detection of Parainfluenza Virus type 2 by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with Parainfluenza virus types 1 and 3.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.