SANTA CRUZ BIOTECHNOLOGY, INC.

# Parainfluenza Virus type 1 (1231): sc-57955



The Power to Question

### **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.
- Howe, C., Milliken, S.A. and Newcomb, E.W. 1970. Growth studies of Parainfluenza Virus (type 2). Arch. Gesamte Virusforsch. 29: 50-62.
- 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.
- 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.
- 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.
- 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.
- García García, M.L., Aguilar Ruiz, J., Echeverría Mayo, J.E., Calvo Rey, C., Pinto Fuentes, I., Ordobás 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 1 (1231) is a mouse monoclonal antibody raised against cells infected with a clinical isolate of Parainfluenza Virus type 1 origin.

### **PRODUCT**

Each vial contains 100  $\mu g$   $lgG_{2b}$  in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

# **APPLICATIONS**

Parainfluenza Virus type 1 (1231) is recommended for detection of Parainfluenza Virus type 1 by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); may cross-react with Sendai Virus; non cross-reactive with Parainfluenza virus types 2 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 for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com