

Parainfluenza Virus type 1 NC (7F5): sc-65934

BACKGROUND

Paramyxoviruses are negative-sense viruses that belong to the Paramyxoviridae family of the Mononegavirales order. Human parainfluenza viruses (HPIVs) are a group of four individual serotypes (HPIV-1, -2, -3 and -4) of single-stranded RNA viruses that are members of the Paramyxoviruses family. Symptoms of infection with this virus include upper respiratory tract illness and sore throat. Parainfluenza viruses can only last for a few hours outside of a live host, and they are destroyed by soap and water. HPIV-1 represents the most common cause of croup in humans. HPIV-1 also typically causes other upper and lower respiratory tract illnesses. The Nucleocapsid (NC) of HPIV-1 consists of its genome and the monomeric protein coat surrounding it.

REFERENCES

1. Newman, J.T., Surman, S.R., Riggs, J.M., Hansen, C.T., Collins, P.L., Murphy, B.R. and Skiadopoulos, M.H. 2002. Sequence analysis of the Washington/1964 strain of human Parainfluenza Virus type 1 (HPIV1) and recovery and characterization of wild-type recombinant HPIV1 produced by reverse genetics. *Virus Genes* 24: 77-92.
2. Bousse, T., Matrosovich, T., Portner, A., Kato, A., Nagai, Y. and Takimoto, T. 2002. The long noncoding region of the human Parainfluenza Virus type 1 f gene contributes to the read-through transcription at the m-f gene junction. *J. Virol.* 76: 8244-8251.
3. Newman, J.T., Riggs, J.M., Surman, S.R., McAuliffe, J.M., Mulaikal, T.A., Collins, P.L., Murphy, B.R. and Skiadopoulos, M.H. 2004. Generation of recombinant human Parainfluenza Virus type 1 vaccine candidates by importation of temperature-sensitive and attenuating mutations from heterologous paramyxoviruses. *J. Virol.* 78: 2017-2028.
4. Bartlett, E.J., Amaro-Carambot, E., Surman, S.R., Newman, J.T., Collins, P.L., Murphy, B.R. and Skiadopoulos, M.H. 2005. Human Parainfluenza Virus type I (HPIV1) vaccine candidates designed by reverse genetics are attenuated and efficacious in African green monkeys. *Vaccine* 23: 4631-4646.
5. Bartlett, E.J., Amaro-Carambot, E., Surman, S.R., Collins, P.L., Murphy, B.R. and Skiadopoulos, M.H. 2006. Introducing point and deletion mutations into the P/C gene of human Parainfluenza Virus type 1 (HPIV1) by reverse genetics generates attenuated and efficacious vaccine candidates. *Vaccine* 24: 2674-2684.
6. Van Cleve, W., Amaro-Carambot, E., Surman, S.R., Bekisz, J., Collins, P.L., Zoon, K.C., Murphy, B.R., Skiadopoulos, M.H. and Bartlett, E.J. 2006. Attenuating mutations in the P/C gene of human Parainfluenza Virus type 1 (HPIV1) vaccine candidates abrogate the inhibition of both induction and signaling of type I interferon (IFN) by wild-type HPIV1. *Virology* 352: 61-73.
7. Bousse, T. and Takimoto, T. 2006. Mutation at residue 523 creates a second receptor binding site on human Parainfluenza Virus type 1 hemagglutinin-neuraminidase protein. *J. Virol.* 80: 9009-9016.
8. Amonsén, M., Smith, D.F., Cummings, R.D. and Air, G.M. 2007. Human parainfluenza viruses hPIV1 and hPIV3 bind oligosaccharides with α 2-3 linked sialic acid that are distinct from those bound by H5 avian influenza hemagglutinin. *J. Virol.* 81: 8341-8345.

SOURCE

Parainfluenza Virus type 1 NC (7F5) is a mouse monoclonal antibody raised against recombinant Parainfluenza Virus type 1 NC.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Parainfluenza Virus type 1 NC (7F5) is recommended for detection of nucleocapsid protein of Parainfluenza Virus type 1 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

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.