

# Parvovirus (CPV1-2A1): sc-57961

## BACKGROUND

Parvovirus is a genus of the Parvoviridae family of linear, non-segmented single stranded DNA viruses with an average genome size of 5 kbp. Parvovirus are some of the smallest viruses found in nature. The viral capsid of Parvovirus is composed of three proteins designated VP1, VP2 and VP3, that form an icosahedral structure resistant to pH, solvents and temperature up to 50° C. Within the capsid is a single stranded DNA genome with hairpins formed by sequences of approximately 115 nucleotides long at the 5' and 3' ends. Parvoviridae infect many mammalian species. The human form of Parvovirus (designated B19) is the causative agent of erythema infectiosum, a mild epidemic illness that infects erythroid cells and spreads rapidly. Human Parvovirus (B19) especially poses a risk to pregnant women who can pass the virus to the fetus.

## REFERENCES

- Pattison, J.R., Jones, S.E., Hodgson, J., Davis, L.R., White, J.M., Stroud, C.E. and Murtaza, L. 1981. *Parvovirus* infections and hypoplastic crisis in sickle-cell anaemia. *Lancet* 1: 664-665.
- Anderson, M.J., Jones, S.E., Fisher-Hoch, S.P., Lewis, E., Hall, S.M., Bartlett, C.L., Cohen, B.J., Mortimer, P.P. and Pereira, M.S. 1983. Human *Parvovirus*, the cause of erythema infectiosum (fifth disease)? *Lancet* 1: 1378.
- White, D.G., Woolf, A.D., Mortimer, P.P., Cohen, B.J., Blake, D.R. and Bacon, P.A. 1985. Human *Parvovirus* arthropathy. *Lancet* 1: 419-421.
- Reid, D.M., Reid, T.M., Brown, T., Rennie, J.A. and Eastmond, C.J. 1985. Human *Parvovirus*-associated arthritis: a clinical and laboratory description. *Lancet* 1: 422-425.
- Ozawa, K. and Young, N. 1987. Characterization of capsid and noncapsid proteins of B19 *Parvovirus* propagated in human erythroid bone marrow cell cultures. *J. Virol.* 61: 2627-2630.
- Anand, A., Gray, E.S., Brown, T., Clewley, J.P. and Cohen, B.J. 1987. Human *Parvovirus* infection in pregnancy and hydrops fetalis. *N. Engl. J. Med.* 316: 183-186.
- Woolf, A.D., Campion, G.V., Chishick, A., Wise, S., Cohen, B.J., Klouda, P.T., Caul, O. and Dieppe, P.A. 1989. Clinical manifestations of human *Parvovirus* B19 in adults. *Arch. Intern. Med.* 149: 1153-1156.
- Berns, K.I. 1990. *Parvovirus* replication. *Microbiol. Rev.* 54: 316-329.
- Finkel, T.H., Török, T.J., Ferguson, P.J., Durigon, E.L., Zaki, S.R., Leung, D.Y., Harbeck, R.J., Gelfand, E.W., Saulsbury, F.T. and Hollister, J.R. 1994. Chronic *Parvovirus* B19 infection and systemic necrotising vasculitis: opportunistic infection or aetiological agent? *Lancet* 343: 1255-1258.

## SOURCE

Parvovirus (CPV1-2A1) is a mouse monoclonal antibody raised against *Parvovirus*.

## 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

Parvovirus (CPV1-2A1) is recommended for detection of canine parvovirus (CPV) and feline panleucopenia virus (FPV) of *Parvovirus* origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with canine adenovirus (type2), canine coronavirus, canine distemper, canine parinfluenza virus, feline leukaemia virus and feline immunodeficiency virus.

Molecular Weight of Parvovirus: 84 kDa.

## SELECT PRODUCT CITATIONS

- Kul, O., Atmaca, H.T., Anteplioglu, T., Ocal, N. and Canpolat, S. 2015. *Neospora caninum*: the first demonstration of the enteroepithelial stages in the intestines of a naturally infected dog. *J. Comp. Pathol.* 153: 9-13.
- Garigliany, M., Gilliaux, G., Jolly, S., Casanova, T., Bayrou, C., Gommeren, K., Fett, T., Mauroy, A., Lévy, E., Cassart, D., Peeters, D., Poncelet, L. and Desmecht, D. 2016. Feline panleukopenia virus in cerebral neurons of young and adult cats. *BMC Vet. Res.* 12: 28.
- Poncelet, L., Garigliany, M., Ando, K., Franssen, M., Desmecht, D. Brion, J.P. 2016. Cell cycle S phase markers are expressed in cerebral neuron nuclei of cats infected by the feline panleukopenia virus. *Cell Cycle* 15: 3482-3489.

## 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.