



CDV (DV2-12): sc-57660

BACKGROUND

Canine distemper is a highly infectious and often lethal viral disease of the genus Morbillivirus which affects the respiratory, gastrointestinal and central nervous systems of canines and other carnivores. Canines from four months to four years old are particularly susceptible. Canine distemper virus (CDV) is transmitted through the air and through contact with infected bodily fluids, including food and water contaminated with these fluids. Once it invades the central nervous system, CDV replicates in glial cells and neurons of the white matter during a period of viral induced immunosuppression, eventually leading to demyelination in the absence of inflammation. Encephalomyelitis is the common cause of death from CDV infection. Persistence of the virus in the brain may be due to non-cytolytic selective spread of CDV with very limited budding.

REFERENCES

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2. Vandeveld, M., Higgins, R.J., Kristensen, B., Kristensen, F., Steck, A.J. and Kihm, U. 1982. Demyelination in experimental canine distemper virus infection: immunological, pathologic and immunohistological studies. *Acta Neuropathol.* 56: 285-293.
3. Osterhaus, A.D., Groen, J., De Vries, P., UytdeHaag, F.G., Klingeborn, B. and Zarnke, R. 1988. Canine distemper virus in seals. *Nature* 335: 403-404.
4. Shin, Y., Mori, T., Okita, M., Gemma, T., Kai, C. and Mikami, T. 1995. Detection of canine distemper virus nucleocapsid protein gene in canine peripheral blood mononuclear cells by RT-PCR. *J. Vet. Med. Sci.* 57: 439-445.
5. Summers, B.A. and Appel, M.J. 1995. Aspects of canine distemper virus and measles virus encephalomyelitis. *Neuropathol. Appl. Neurobiol.* 20: 525-534.
6. Vandeveld, M. and Zurbriggen, A. 1996. The neurobiology of canine distemper virus infection. *Vet. Microbiol.* 44: 271-280.
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8. Cherpillod, P., Tipold, A., Griot-Wenk, M., Cardozo, C., Schmid, I., Fatzer, R., Schobesberger, M., Zurbriggen, R., Bruckner, L., Roch, F., Vandeveld, M., Wittek, R. and Zurbriggen, A. 2000. DNA vaccine encoding nucleocapsid and surface proteins of wild type canine distemper virus protects its natural host against distemper. *Vaccine* 18: 2927-2936.

SOURCE

CDV (DV2-12) is a mouse monoclonal antibody raised against nucleoprotein of CDV origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CDV (DV2-12) is recommended for detection of CDV by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

SELECT PRODUCT CITATIONS

1. Li, W.T., Wu, C.C., Tu, Y.C., Huang, W.H., Chang, H.W., Pang, V.F., Jeng, C.R. and Liu, C.H. 2019. Concurrent leukoencephalomyelitis and polyneuritis in a Maltese terrier: resembling combined central and peripheral demyelination in humans. *J. Vet. Med. Sci.* 81: 1373-1378.
2. Nath, S. and Nagaraju, G. 2020. FANCF helicase promotes DNA end resection by facilitating CtIP recruitment to DNA double-strand breaks. *PLoS Genet.* 16: e1008701.

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.