

# Coronavirus nucleocapsid (CCV2-2): sc-66012

## BACKGROUND

Coronavirus is a genus of animal virus that belongs to the family *Coronaviridae*. Coronaviruses are enveloped viruses with a positive-sense single-stranded RNA genome and a helical symmetry that resemble a crown when viewed under an electron microscope. They primarily infect the upper respiratory and gastrointestinal tract of mammals and birds. Four or five different known strains of Coronavirus infect humans and are thought to be the cause of many common colds. The most publicized human Coronavirus, SARS-CoV, causes both upper and lower respiratory tract infections and can also cause gastroenteritis.

## REFERENCES

1. Cabirac, G.F., Soike, K.F., Zhang, J.Y., Hoel, K., Butunoi, C., Cai, G.Y., Johnson, S. and Murray, R.S. 1995. Entry of Coronavirus into primate CNS following peripheral infection. *Microb. Pathog.* 16: 349-357.
2. Foley, J.E. and Leutenegger, C. 2001. A review of Coronavirus infection in the central nervous system of cats and mice. *J. Vet. Intern. Med.* 15: 438-444.
3. Ying, W., Hao, Y., Zhang, Y., Peng, W., Qin, E., Cai, Y., Wei, K., Wang, J., Chang, G., Sun, W., Dai, S., Li, X., Zhu, Y., Li, J., Wu, S., Guo, L., Dai, J., Wang, J., Wan, P., Chen, T., Du, C., Li, D., Wan, J., Kuai, X., Li, W., et al. 2004. Proteomic analysis on structural proteins of severe acute respiratory syndrome Coronavirus. *Proteomics* 4: 492-504.
4. Yu, C.J., Chen, Y.C., Hsiao, C.H., Kuo, T.C., Chang, S.C., Lu, C.Y., Wei, W.C., Lee, C.H., Huang, L.M., Chang, M.F., Ho, H.N. and Lee, F.J. 2004. Identification of a novel protein 3a from severe acute respiratory syndrome Coronavirus. *FEBS Lett.* 565: 111-116.
5. Ebihara, T., Endo, R., Ma, X., Ishiguro, N. and Kikuta, H. 2005. Detection of human Coronavirus NL63 in young children with bronchiolitis. *J. Med. Virol.* 75: 463-465.
6. Esper, F., Shapiro, E.D., Weibel, C., Ferguson, D., Landry, M.L. and Kahn, J.S. 2005. Association between a novel human Coronavirus and Kawasaki disease. *J. Infect. Dis.* 191: 499-502.
7. Shi, X., Gong, E., Gao, D., Zhang, B., Zheng, J., Gao, Z., Zhong, Y., Zou, W., Wu, B., Fang, W., Liao, S., Wang, S., Xie, Z., Lu, M., Hou, L., Zhong, H., Shao, H., Li, N., Liu, C., Pei, F., Yang, J., Wang, Y., Han, Z., et al. 2005. Severe acute respiratory syndrome-associated Coronavirus is detected in intestinal tissues of fatal cases. *Am. J. Gastroenterol.* 100: 169-176.
8. Gerna, G., Campanini, G., Rovida, F., Percivalle, E., Sarasini, A., Marchi, A. and Baldanti, F. 2006. Genetic variability of human Coronavirus OC43-, 229E-, and NL63-like strains and their association with lower respiratory tract infections of hospitalized infants and immunocompromised patients. *J. Med. Virol.* 78: 938-949.
9. Watanabe, R., Matsuyama, S. and Taguchi, F. 2006. Receptor-independent infection of murine Coronavirus: analysis by spinoculation. *J. Virol.* 80: 4901-4908.

## RESEARCH USE

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

## SOURCE

Coronavirus nucleocapsid (CCV2-2) is a mouse monoclonal antibody raised against FIPV, CCV and TGEV Coronavirus.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Coronavirus nucleocapsid (CCV2-2) is recommended for detection of nucleocapsid of Coronavirus origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular weight of Coronavirus nucleocapsid: 46 kDa.

Molecular weight of Coronavirus nucleocapsid phosphoprotein: 50-60 kDa.

## STORAGE

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

## PROTOCOLS

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