SANTA CRUZ BIOTECHNOLOGY, INC.

CMV gH (0861): sc-58113

BACKGROUND

Cytomegalovirus (CMV) is a member of the herpes virus group which includes herpes simplex virus types 1 and 2; Varicella Zoster Virus, which causes chicken pox; and Epstein Barr virus, which causes infectious mononucleosis. These viruses remain dormant within the body over a long period. In humans, CMV is known as HCMV or human herpesvirus-5 (HHV-5). HHV-5 causes only a brief mononeucleosis-like malaise in immunocompetent adults, but may cause severe illness or death in immunosuppressed individuals. CMV gH (glycoprotein H), is an abundant virion envelope protein that is essential for the infectivity of CMV. More specifically, CMV gH forms a complex with other CMV glycoproteins, namely CMV gL and CMV gO, that works in concert with CMV gB, mediating the binding and entry of the CMV virus into host cells. In addition, CMV gH is able to activate TLR2 (Toll-like receptor 2), leading to the subsequent activation of NFκB and inflammatory cytokine responses.

REFERENCES

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2. Woo, P.C., Lo, C.Y., Lo, S.K., Siau, H., Peiris, J.S., Wong, S.S., Luk, W.K., Chan, T.M., Lim, W.W. and Yuen, K.Y. 1997. Distinct genotypic distributions of cytomegalovirus (CMV) envelope glycoprotein in bone marrow and renal transplant recipients with CMV disease. Clin. Diagn. Lab. Immunol. 4: 515-518.
3. Hamilton, A.A., Manuel, D.M., Grundy, J.E., Turner, A.J., King, S.I., Adair, J.R., White, P., Carr, F.J. and Harris, W.J. 1997. A humanized antibody against human cytomegalovirus (CMV) gpUL75 (gH) for prophylaxis or treatment of CMV infections. J. Infect. Dis. 176: 59-68.
4. Yurochko, A.D. and Huang, E.S. 1999. Human cytomegalovirus binding to human monocytes induces immunoregulatory gene expression. J. Immunol. 162: 4806-4816.
5. Aquino, V.H. and Figueiredo, L.T. 2001. cytomegalovirus infection in renal transplant recipients diagnosed by nested-PCR. Braz. J. Med. Biol. Res. 34: 93-101.
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8. Lopper, M. and Compton, T. 2004. Coiled-coil domains in glycoproteins B and H are involved in human cytomegalovirus membrane fusion. J. Virol. 78: 8333-8341.

SOURCE

CMV gH (0861) is a mouse monoclonal antibody raised against cytomegalovirus.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CMV gH (0861) is recommended for detection of gH of CMV 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 CMV gH: 86 kDa.

SELECT PRODUCT CITATIONS

1. Tang, Q., Roan, N.R. and Yamamura, Y. 2013. Seminal plasma and semen amyloids enhance cytomegalovirus infection in cell culture. J. Virol. 87: 12583-12591.
2. Luganini, A., et al. 2017. Loss of the human Cytomegalovirus US16 protein abrogates virus entry into endothelial and epithelial cells by reducing the virion content of the pentamer. J. Virol. 91: e00205-17.

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.