

CMV gB (1-M-12): sc-52400

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 mononucleosis-like malaise in immunocompetent adults, but may cause severe illness or death in immunosuppressed individuals. CMV gB (CMV glycoprotein B) is an abundant virion envelope protein that is essential for the infectivity of CMV. CMV gB is also one of the most immunogenic virus-encoded proteins, and a significant fraction of virus neutralizing antibodies are directed at CMV gB.

REFERENCES

- Gönczöl, E., et al. 1991. High expression of human cytomegalovirus (HCMV)-gB protein in cells infected with a vaccinia-gB recombinant: the importance of the gB protein in HCMV immunity. *Vaccine* 9: 631-637.
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- Crump, C.M., et al. 2003. Role of PACS-1 in trafficking of human cytomegalovirus glycoprotein B and virus production. *J. Virol.* 77: 11105-11113.
- Yue, Y., et al. 2003. Antibody responses to rhesus cytomegalovirus glycoprotein B in naturally infected rhesus macaques. *J. Gen. Virol.* 84: 3371-3379.
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- Heineman, T.C., et al. 2004. Conserved cytoplasmic and HCMV gB. *Virology* 328: 131-141.

SOURCE

CMV gB (1-M-12) is a mouse monoclonal antibody raised against cells infected with human CMV.

PRODUCT

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

APPLICATIONS

CMV gB (1-M-12) is recommended for detection of human CMV gB (glycoprotein B) 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 gB full length protein: 160 kDa.

Molecular Weight of CMV gB cleavage products: 55/110 kDa.

SELECT PRODUCT CITATIONS

- Zydek, M., et al. 2010. Cyclin-dependent kinase activity controls the onset of the HCMV lytic cycle. *PLoS Pathog.* 6: e1001096.
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- Han, G.R., et al. 2014. Label-free detection of viruses on a polymeric surface using liquid crystals. *Colloids Surf. B Biointerfaces* 116: 147-152.
- Wiebusch, L. and Hagemeyer, C. 2014. Use of 5-ethynyl-2'-deoxyuridine labelling and flow cytometry to study cell cycle-dependent regulation of human cytomegalovirus gene expression. *Methods Mol. Biol.* 1119: 123-132.
- Watanabe, K., et al. 2018. High-sensitivity virus and mycoplasma screening test reveals high prevalence of parvovirus B19 infection in human synovial tissues and bone marrow. *Stem Cell Res. Ther.* 9: 80.
- Gergen, J., et al. 2018. Multiplex CRISPR/Cas9 system impairs HCMV replication by excising an essential viral gene. *PLoS ONE* 13: e0192602.
- Sadanari, H., et al. 2022. The interferon-inducible human PLSCR1 protein is a restriction factor of human cytomegalovirus. *Microbiol. Spectr.* 10: e0134221.

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.