

CMV pp72 (CH443): sc-69747

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 immediate early (CMV IE) proteins are present during active CMV infection and they activate the extracellular matrix proteins Thrombospondin 1 and Thrombospondin 2. The CMV IE protein CMV pp72 interacts with another CMV IE protein CMV pp86 to stimulate the expression of HLA-G, a non-classical MHC class 1 molecule, during viral infection. The CMV IE promoter is activated by the inflammatory process proteins: tumor necrosis factor (TNF α), interleukin 1 β (IL-1 β) and interleukin 4 (IL-4).

REFERENCES

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3. Margraf, S., et al. 2001. Antisense oligonucleotide ISIS 2922 targets IE expression and prevents HCMV-IE-induced suppression of TSP-1 and TSP-2 expression. *Nucleosides Nucleotides Nucleic Acids* 20: 1425-1428.
4. Khan, N., et al. 2002. Comparative analysis of CD8⁺ T cell responses against human Cytomegalovirus proteins pp65 and immediate early 1 shows similarities in precursor frequency, oligoclonality, and phenotype. *J. Infect. Dis.* 185: 1025-1034.
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6. Vlasák, J., et al. 2003. Comparison of HCMV immediate early and CaMV 35S promoters in both plant and human cells. *J. Biotechnol.* 103: 197-202.
7. Moss, P. and Khan, N. 2004. CD8⁺ T cell immunity to Cytomegalovirus. *Hum. Immunol.* 65: 456-464.
8. Carlsson, B., et al. 2005. Simultaneous generation of Cytomegalovirus-specific CD8⁺ and CD4⁺ T lymphocytes by use of dendritic cells comodified with pp65 mRNA and pp65 protein. *J. Infect. Dis.* 192: 1912-1920.
9. Sinici, I., et al. 2006. Comparison of HCMV IE and EF-1 promoters for the stable expression of β subunit of hexosaminidase in CHO cell lines. *Biochem. Genet.* 44: 173-180.

SOURCE

CMV pp72 (CH443) is a mouse monoclonal antibody raised against CMV.

PRODUCT

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

APPLICATIONS

CMV pp72 (CH443) is recommended for detection of pp72 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 pp72: 72 kDa.

SELECT PRODUCT CITATIONS

1. Scherer, M., et al. 2014. Crystal structure of Cytomegalovirus IE1 protein reveals targeting of TRIM family member PML via coiled-coil interactions. *PLoS Pathog.* 10: e1004512.

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.