



# CMV UL94 (6j8): sc-71231

## 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 UL94 encodes for a highly conserved late protein. The promoter of CMV UL94 contains a negative regulatory element (NRE) upstream of the RNA start site, a TATA box and a positive regulatory element (PRE) downstream of the RNA start site. Regulation of the CMV UL94 promoter requires the cellular protein p53.

## REFERENCES

1. Boppana, S.B., Smith, R.J., Stagno, S. and Britt, W.J. 1992. Evaluation of a microtiter plate fluorescent-antibody assay for rapid detection of human cytomegalovirus infection. *J. Clin. Microbiol.* 30: 721-723.
2. Wing, B.A., Johnson, R.A. and Huang, E.S. 1998. Identification of positive and negative regulatory regions involved in regulating expression of the human cytomegalovirus UL94 late promoter: role of IE2-86 and cellular p53 in mediating negative regulatory function. *J. Virol.* 72: 1814-1825.
3. Onno, M., Pangault, C., Le Friec, G., Guilloux, V., Andre, P. and Fauchet, R. 2000. Modulation of HLA-G antigens expression by human cytomegalovirus: specific induction in activated macrophages harboring human cytomegalovirus infection. *J. Immunol.* 164: 6426-6434.
4. Margraf, S., Bittoova, M., Vogel, J.U., Kotchekov, R., Doerr, H.W. and Cinatl, J. 2001. Antisense oligonucleotide ISIS 2922 targets IE-expression and prevents HCMV suppression of TSP-1 and TSP-2 expression. *Nucleosides, nucleotides nucleic acids.* 20: 1425-1428.
5. Khan, N., Cobbold, M., Keenan, R. and Moss, P.A. 2002. Comparative analysis of CD8<sup>+</sup> 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.
6. Snaar, S.P., Verdijk, P., Tanke, H.J. and Dirks, R.W. 2002. Kinetics of HCMV immediate early mRNA expression in stably transfected fibroblasts. *J. Cell Sci.* 115: 321-328.
7. Vlasák, J., Smahel, M., Pavlík, A., Pavingerová, D. and Bríza, J. 2003. Comparison of hCMV immediate early and CaMV 35S promoters in both plant and human cells. *J. Biotechnol.* 103: 197-202.
8. Moss, P. and Khan, N. 2004. CD8<sup>+</sup> T-cell immunity to cytomegalovirus. *Hum Immunol.* 65: 456-464.
9. Carlsson, B., Hou, M., Giandomenico, V., Nilsson, B., Totterman, T.H. and Essand, M. Simultaneous generation of cytomegalovirus-specific CD8<sup>+</sup> and CD4<sup>+</sup> T lymphocytes by use of dendritic cells comodified with pp65 mRNA and pp65 protein. *J. Infect. Dis.* 192: 1912-1920

## RESEARCH USE

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

## SOURCE

CMV UL94 (6j8) is a mouse monoclonal antibody raised against amino acids 26-40 of UL94 of CMV origin.

## PRODUCT

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

## APPLICATIONS

CMV UL94 (6j8) is recommended for detection of UL94 protein of CMV origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Molecular Weight of CMV UL94: 36 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rat IgG-HRP: sc-2006 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-rat IgG-HRP: sc-2032 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

## 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) or our catalog for detailed protocols and support products.