SANTA CRUZ BIOTECHNOLOGY, INC.

CMV pp65 (1.B.228): sc-71229

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 pp65 is the early-late lower matrix phosphoprotein of CMV that may be relevant to the etiopathogenesis of scleroderma. CMV pp65 is a major constituent of the CMV virion bodies and is abundantly synthesized during lytic infection. In addition, the CMV pp65 protein is a frequent target for the exceptionally strong CMV-specific $CD8^+$ T cell response.

REFERENCES

1. Margraf, S., et al. 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.
2. 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.
3. Snaar, S.P., et al. 2002. Kinetics of HCMV immediate early mRNA expression in stably transfected fibroblasts. J. Cell Sci. 115: 321-328.
4. 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.
5. McGregor, A., et al. 2004. Molecular, biological, and *in vivo* (CMV) homologs of the human CMV matrix proteins pp71 (UL82) and pp65 (UL83). J. Virol. 78: 9872-9889.
6. Moss, P. and Khan, N. 2004. $CD8^+$ T cell immunity to cytomegalovirus. Hum. Immunol. 65: 456-464.
7. McGregor, A., et al. 2004. Molecular, biological, and *in vivo* (CMV) homologs of the human CMV matrix proteins pp71 (UL82) and pp65 (UL83). J. Virol. 78: 9872-9889.
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 pp65 (1.B.228) is a mouse monoclonal antibody raised against cells infected with CMV.

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 pp65 (1.B.228) is recommended for detection of pp65 of CMV 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 pp65: 65 kDa.

SELECT PRODUCT CITATIONS

1. Nair, S.K., et al. 2014. Recognition and killing of autologous, primary glioblastoma tumor cells by human cytomegalovirus pp65-specific cytotoxic T cells. Clin. Cancer Res. 20: 2684-2694.
2. Goulidaki, N., et al. 2015. RhoB is a component of the human cytomegalovirus assembly complex and is required for efficient viral production. Cell Cycle 14: 2748-2763.
3. 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.

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.