SANTA CRUZ BIOTECHNOLOGY, INC.

CMV pp71 (vR-20): sc-33322

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). CMV pp71 is a tegument phosphoprotein that activates viral immediate early transcription and thus has a role in initiating lytic infection. CMV pp71, which co-localizes with PML protein at nuclear domain 10 structures, employs a similar motif to the oncoproteins of DNA tumor viruses, inducing DNA synthesis in quiescent cells by binding to and inducing degradation of hypophohsphorylated forms of retinoblastoma protein (Rb) and family members p107 and p130 in a proteasome-dependent manner. The targeting of these proteins for degradation by the proteasome does not involve ubiquitin conjugation. CMV pp71 is not capable of inducing apoptosis.

REFERENCES

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2. Hofmann, H., Sindre, H. and Stamminger, T. 2002. Functional interaction between the pp71 protein of human Cytomegalovirus and the PML-interacting protein human Daxx. J. Virol. 76: 5769-5783.
3. Kalejta, R.F. and Shenk, T. 2003. The human Cytomegalovirus UL82 gene product (pp71) accelerates progression through the G_1 phase of the cell cycle. J. Virol. 77: 3451-3459.
4. Kalejta, R.F., Bechtel, J.T. and Shenk, T. 2003. Human Cytomegalovirus pp71 stimulates cell cycle progression by inducing the proteasome-dependent degradation of the retinoblastoma family of tumor suppressors. Mol. Cell. Biol. 23: 1885-1895.
5. Kalejta, R.F. and Shenk, T. 2003. Proteasome-dependent, ubiquitin-independent degradation of Rb family of tumor suppressors by the human cytomegalovirus pp71 protein. Proc. Natl. Acad. Sci. USA 100: 3263-3268.

SOURCE

CMV pp71 (vR-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of pp71 of CMV origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-33322 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

CMV pp71 (vR-20) is recommended for detection of pp71 of CMV origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of CMV pp71: 71 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

RESEARCH USE

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