

Monoclonal Antibody to Cytomegalomavirus (CMV) - LA - Purified

Catalog No.: AM32083PU-N
Quantity: 1 ml
Concentration: 0.1 mg/ml
Background:

Cytomegalovirus (CMV) is a member of the Herpes virus family. Members of this family have a characteristic virion structure. The double stranded DNA genome is contained within an icosahedral capsid which is embedded in a proteinaceous layer (tegument) and surrounded by a lipid envelope that is decorated with virus-specific glycoprotein spikes. The viral genes are co-ordinately expressed in groups at various times after infection. Early viral proteins are expressed in the nucleus of infected cells within 3 to 24 hours of infection prior to the commencement of viral DNA replication. This is followed by expression of the early intermediate genes, which encode enzymes required for viral DNA replication. After 48 to 72 hours, a number of late viral antigens may be demonstrated in the nuclei and cytoplasm of infected cells. CMV strain AD169 is a laboratory-adapted strain. It appears to lack a 15kb region of the 200kb genome that is present in clinical isolates. This region contains 19 open reading frames whose functions have yet to be elucidated. AD169 is also unique in that it is unable to enter latency and nearly always assumes lytic growth upon infection.

Host / Isotype: Mouse / IgG1
Recommended Isotype Controls: SM10P (for use in human samples), AM03095PU-N
Clone: BM219
Format: **State:** Liquid purified IgG fraction
Buffer System: PBS
Preservatives: 0.09% Sodium Azide
Stabilizers: 0.1% BSA

Applications: **ELISA:** 1/500-1/1000.
Western Blot.
Immunofluorescence (1/50). This antibody is useful for the detection of the late stage of cytomegalovirus infection.
Immunohistochemistry on Fresh Cells and Paraffin Embedded Tissue Sections (1/50). If a too low signal is obtained, it is advised to use as second antibody a biotinylated F(ab')₂ preparation of anti-Mouse IgG followed by a layer with streptavidin-Biotin-HRP complex

and silver enhancement.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

Reacts with Cytomegalovirus.

The specificity of the antibody was ascertained by **Immunofluorescence** on the AD 169 strain (ATCC VR-538), field isolates and a large number of wild strain, immediate early, early and late antigen preparations.

The antibody recognizes in **Western blot** a structural antigen of 21-23 kD.

This antigen can be detected by Fluorescence assay at 96 hours after infection. The antibody gives a specific cytoplasmic perinuclear fluorescence only in case of late antigen (LA) expression. It does not crossreact with other Herpes viruses.

Storage:

Store the antibody undiluted at 2-8°C.

Shelf life: one year from despatch.

General Readings:

1. Bruning JH, Debie WH, Dormans PH, Meijer H, Bruggeman CA. The development and characterization of monoclonal antibodies against rat cytomegalovirus induced antigens. Arch Virol. 1987;94(1-2):55-70. PubMed PMID: 2437886.