

Mouse Anti-Human gB Monoclonal Antibody

Cat. No. CAB-699MH **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species Human

Source Mouse

Immunogen Description

Human cytomegalovirus (CMV) (human herpesvirus 5) glycoprotein B is a 907-amino acid glycoprotein encoded by the ORF of UL55. It is the most abundant component of the envelope with at least two defined neutralizing epitopes, a target of neutralizing antibodies and an essential replication component. The synthesized gB precursor matures into a 130-160 kDa glycoprotein by acquiring N-linked glycosylation modifications, and is cleaved by the cellular protease furin into two components, a 93-116 kDa N-terminal fragment and a 55 kDa C-terminal fragment linked by a disulfide-bond, which is presented on the viral envelope as well as on the surface of virus-infected cells as a covalently associated homodimer. gB plays important roles in HCMV entry, cell-cell spread of internal virions, and fusion of infected cells. It triggers penetration of cells and enhances the spread of infection in nonpolarized human fibroblasts. The interaction of gB with the non-heparin receptor CD209/DC-SIGN is the initiation of intracellular signaling and activation of the IFN-responsive pathway. In addition, gB is one envelope protein capable of heparin binding. It forms a physical association with host cell annexin II independent of the presence of calcium.

Immunogen Recombinant Human CMV gB / Glycoprotein B protein

Antibody Type Mouse Monoclonal Antibody

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Ig Type	Mouse IgG1
Formulation	0.2 µm filtered solution in PBS with 5% trehalose
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant human CMV gB (AAA45920.1) extracellular domain (Met 1- Lys 700) linked with the cytoplasmic domain (Arg777- Val 907). The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Specificity	Human CMV Glycoprotein B / gB,no cross-reactivity with human cell lysate (293 cell line) in WB and ELISA.
Western blot	This antibody can be used at 1-2µg/mL with the appropriate secondary reagents to detect human CMV gB in WB. Using a DAB detection system, the detection limit for human CMV gB is approximately0.125 ng/ lane under non-reducing conditions and 100ng/lane under reducing conditions.
Direct ELISA	This antibody can be used at 0.5 - 1µg/mL with the appropriate secondary reagents to detect gB. The detection limit for gB is approximately0.039 ng/ well.
Storage	This antibody can be stored at 2°C-8°Cfor one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°Cto -70°C.Preservative-Free. Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.