

CMV-gB (residues 11-67) Cytomegalo Virus Glycoprotein B recombinant, *E. coli*

Cat. No.	Amount
PR-1247	100 µg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form

Liquid. Supplied in 25mM Tris-HCl pH 8.0, 1mM EDTA and 50% glycerol.

Specificity

Immunoreactive with sera of CMV-infected individuals.

Application

Antigen in ELISA and Western blots, excellent antigen for detection of CMV with minimal specificity problems.

Molecular Weight

32.5 kDa

Purity

>95% by SDS-PAGE

Description

The *E.coli* derived recombinant artificial mosaic protein contains the CMV gB immunodominant regions 11-67 amino acids fused with a 26 kDa GST-tag.

Background

Human cytomegalovirus (HCMV), a member of the herpesvirus family, demonstrates cell specificity for virus assembly and release.

The mechanisms for virus assembly and egress are still unclear, although attachment of membrane-bound viral glycoproteins to tegumented capsid is believed to play an important role in this process. The most abundant glycoprotein detected in the HCMV virion envelope is gB. HCMV gB is synthesized as a 105-kDa polypeptide and processed into a highly glycosylated 130-kDa precursor glycoprotein. After glycosylation, the gB precursor is cleaved by furin to produce a heterodimer protein (gp55 and gp116). gB is a type I glycoprotein containing a signal sequence, an extracellular or luminal domain, a transmembrane (TM) domain, and a 135-amino-acid cytoplasmic tail. The cytoplasmic tail contains a consensus casein kinase II (CKII) site, which is phosphorylated both *in vitro* and *in vivo*.

Human CMV is currently classified into four genotypes on the basis of the nucleotide sequence of the gB region.

Selected References:

- Carraro *et al.* (2003) Single human cytomegalovirus gB genotype shed in multiple sites at the time of diagnosis in renal transplant recipients. *J. Med. Virol.* **70**:240.
- Lipes *et al.* (2002) The genotype of mice influences the autoimmune response to spliceosome proteins induced by cytomegalovirus gB immunization. *Clin. Exp. Immunol.* **129**:19.
- Lukacsi *et al.* (2001) Human cytomegalovirus gB genotype 1 is dominant in congenital infections in South Hungary. *J. Med. Virol.* **65**:537.
- Fish *et al.* (1998) Steady-state plasma membrane expression of human cytomegalovirus gB is determined by the phosphorylation state of Ser900. *J. Virol.* **72**:6657.
- Zipeto *et al.* (1998) Geographic and demographic differences in the frequency of human cytomegalovirus gB genotypes 1-4 in immunocompromised patients. *AIDS. Res. Hum. Retroviruses.* **14**:533.
- Rasmussen *et al.* (1997) Cytomegalovirus gB genotype distribution differs in human immunodeficiency virus-infected patients and immunocompromised allograft recipients. *J. Infect. Dis.* **175**:179.