



6352 CORTE DEL ABETO, STE B
CARLSBAD, CA 92011 USA
01.858.642.1988 • WWW.ATSBIO.COM

Cytomegalovirus gB Recombinant VIRAL ANTIGEN

Catalog Number: PRP-211CMV
Quantity: 100 micrograms, 500 micrograms, 1 milligram
Format: 25mM Tris-Hcl pH 8.0, 1mM EDTA and 50% glycerol
Host: *E. coli*

Background:

Cytomegalovirus (CMV) belongs to the *Betaherpesvirinae* subfamily of *Herpesviridae* which includes herpes simplex virus types 1 and 2, varicella-zoster virus, and Epstein-Barr virus. The herpes viruses share a characteristic ability to remain latent over long periods. CMV is a double-stranded linear DNA virus with 162 hexagonal protein capsomeres surrounded by a lipid membrane. CMV has the largest genome of the herpes viruses, ranging from 230-240 kilobase pairs. Human CMV is composed of unique and inverted repeats that include the existence of 4 genome isomers caused by inversion of L-S genome components (class E). Replication may be divided into immediate early, delayed early, and late gene expression based on time of synthesis after infection. The DNA is replicated by rolling circles. *In vitro*, CMV replicates in human fibroblasts.

Specificity and Preparation:

The *E. coli* derived recombinant artificial mosaic protein contains the cytomegalovirus (CMV) gB immunodominant regions (amino acids 11-67), fused with a 26 kDa GST tag. The molecular weight of the gB region protein is 6.5 kDa; the total molecular weight of the recombinant protein is 32.5 kDa. It is purified by a proprietary chromatographic technique. Purity is >95% as determined by 10% SDS-PAGE and coomassie staining. The protein is immunoreactive with sera from CMV-infected individuals.

Usage and Storage:

Reported to be effective for ELISA and immunoblotting (western blot) and is an excellent antigen for detection of CMV with minimal specificity problems. The end user must determine the optimum working titer for each particular application.

Protein may be shipped at ambient temperature. Upon arrival, store at -20°C. It is stable for up to five years frozen, one month in solution at room temperature. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate.

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