



### Synonym

Glycoprotein H & Glycoprotein L & Glycoprotein O/gH & gL & gO (HCMV)

### Source

Human cytomegalovirus (strain AD169) (HHV-5) Glycoprotein H&L&O, His Tag(GLO-V5243) is expressed from human 293 cells (HEK293). It contains AA Lys 31 - Gln 466 & Val 31 - Arg 278 & Arg 24 - Leu 720 (Accession # [P12824](#) & [P16832](#) & [P16750](#)).

Predicted N-terminus: His

### Molecular Characterization

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 162.2 kDa. The protein migrates as 180 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Endotoxin

Less than 1.0 EU per µg by the LAL method.

### Purity

>90% as determined by SDS-PAGE.

### Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

### Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

### Storage

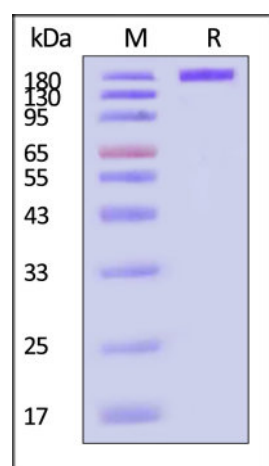
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

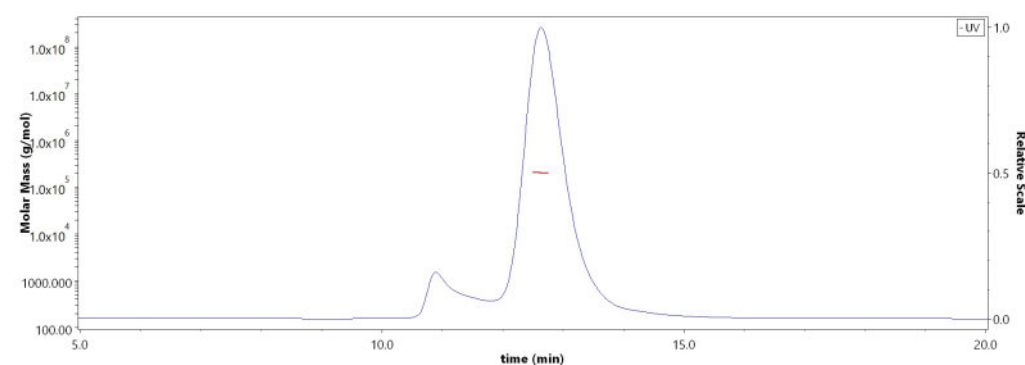
### SDS-PAGE



Human cytomegalovirus (strain AD169) (HHV-5) Glycoprotein H&L&O, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

### Bioactivity-ELISA

### SEC-MALS



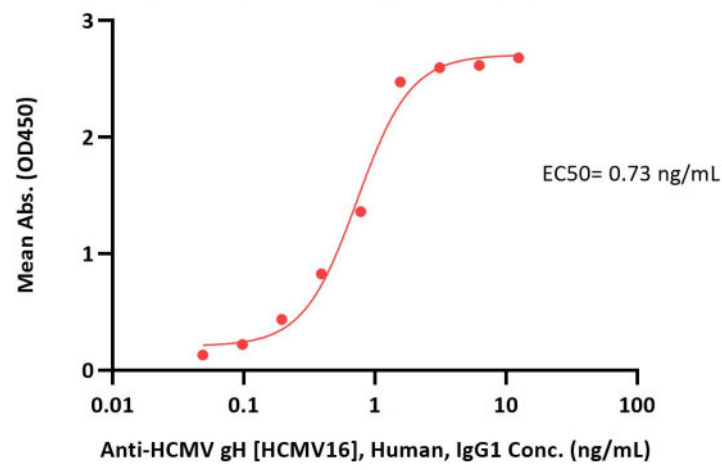
The purity of Human cytomegalovirus (strain AD169) (HHV-5) Glycoprotein H&L&O, His Tag (Cat. No. GLO-V5243) is more than 85% and the molecular weight of this protein is around 195-235 kDa verified by SEC-MALS. [Report](#)

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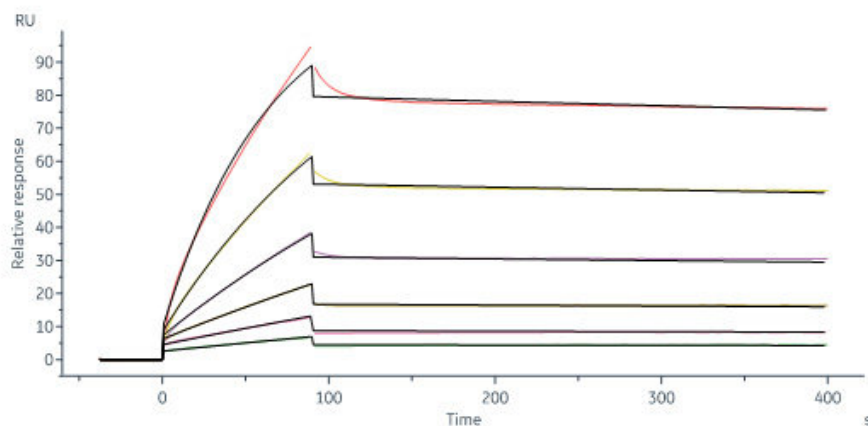


Human cytomegalovirus (strain AD169) (HHV-5) Glycoprotein H&L&O, His Tag ELISA  
0.1 µg of Human cytomegalovirus (strain AD169) (HHV-5) Glycoprotein H&L&O, His Tag per well



Immobilized Human cytomegalovirus (strain AD169) (HHV-5) Glycoprotein H&L&O, His Tag (Cat. No. GLO-V5243) at 1 µg/mL (100 µL/well) can bind Anti-HCMV gH [HCMV16], Human, IgG1 with a linear range of 0.05-2 ng/mL (QC tested).

### Bioactivity-SPR



Human cytomegalovirus (strain AD169) (HHV-5) Glycoprotein H&L&O, His Tag (Cat. No. GLO-V5243) immobilized on CM5 Chip can bind Human PDGFR alpha, His Tag (Cat. No. PDA-H52H7) with an affinity constant of 2.52 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

### Background

Human cytomegalovirus (HCMV), a prototypical beta-herpes virus, is a major cause of morbidity and mortality in immunocompromised transplant recipients and congenitally infected fetuses. Different HCMV glycoprotein complexes are capable of mediating entry through interaction with cell-specific receptors on a panel of host cells. The pentamer (gH/gL/UL128/UL130/UL131A) mediates HCMV entry into epithelial, endothelial, and myeloid cells by its binding to neuropilin 2 (Nrp2). The trimer (gH/gL/gO) can mediate infection of all cell types by binding to platelet-derived growth factor-alpha (PDGFR $\alpha$ ). Both pentamer and trimer need to interact with the glycoprotein B (gB), the fusogenic protein, to trigger the virus and host cell membrane fusion.

### Clinical and Translational Updates

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