Epstein-Barr virus Glycoprotein H&Glycoprotein L Heterodimer Protein, Twin-Strep&His Tag (MALS verified)

Catalog # GHL-E5283

Source

Epstein-Barr virus Glycoprotein H&Glycoprotein L Heterodimer Protein, Twin-Strep&His Tag(GHL-E5283) is expressed from human 293 cells (HEK293). It contains AA Ser 19 - Leu 682 (gH) & Asn 23 - Gly 137 (gL) (Accession # P03231 (gH) & P03212 (gL)).
Predicted N-terminus: Ser 19 & Asn 23

Molecular Characterization

Epstein-Barr virus Glycoprotein H & Glycoprotein L Heterodimer Protein, Twin-Strep&His Tag , has a calculated MW of 76.9 kDa (gH) & 14.6 kDa (gL). Subunit gH is fused with a twin strep tag at the C-terminus and Subunit gL is fused with a polyhistidine tag at the C-terminus. The protein migrates as 26 kDa and 80-90 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

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

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

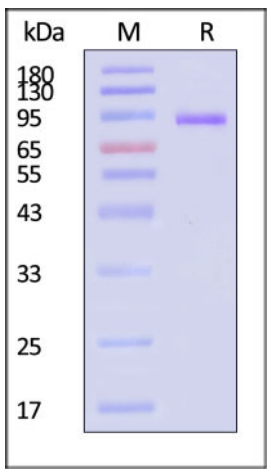
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

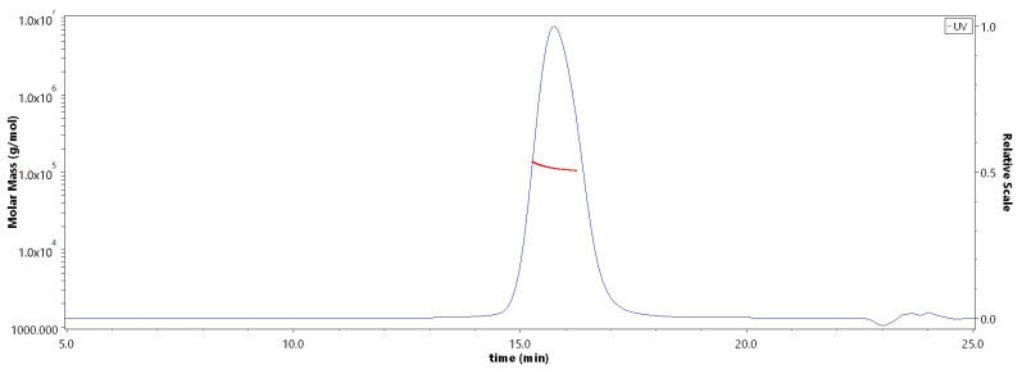
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Epstein-Barr virus Glycoprotein H&Glycoprotein L Heterodimer Protein, Twin-Strep&His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS

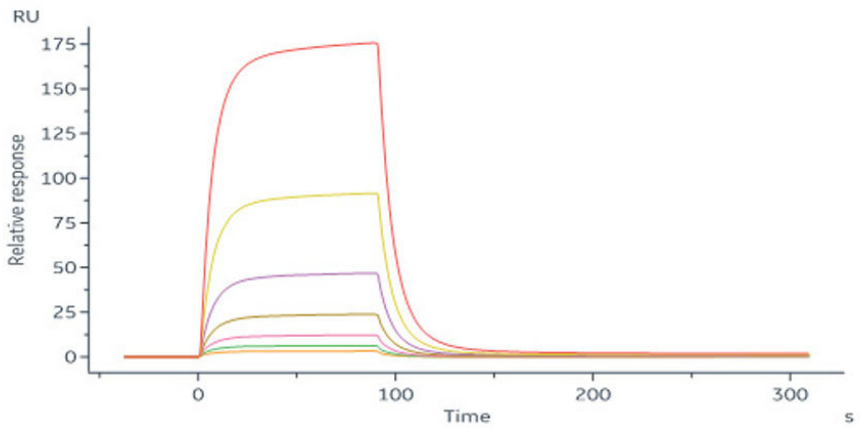


The purity of Epstein-Barr virus Glycoprotein H&Glycoprotein L Heterodimer Protein, Twin-Strep&His Tag (Cat. No. GHL-E5283) is more than 90% and the molecular weight of this protein is around 100-125 kDa verified by SEC-MALS.
Report

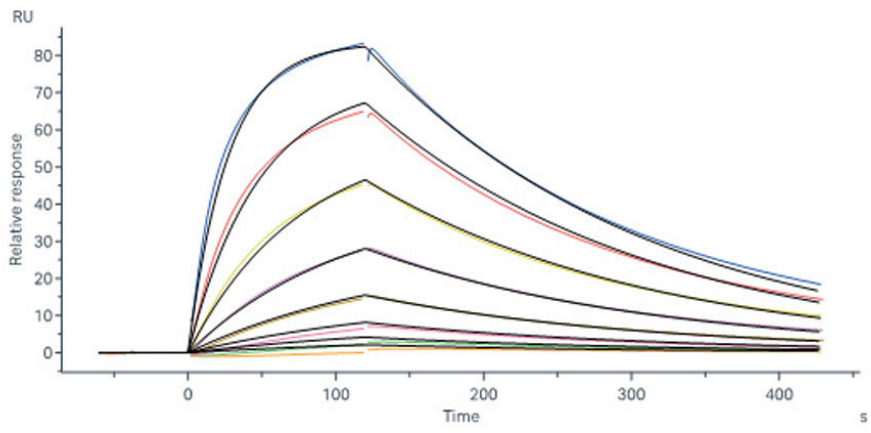
Bioactivity-SPR

Epstein-Barr virus Glycoprotein H&Glycoprotein L Heterodimer Protein, Twin-Strep&His Tag (MALS verified)

Catalog # GHL-E5283



Human EphA2 Protein, His Tag immobilized on CM5 Chip can bind Epstein-Barr virus Glycoprotein H&Glycoprotein L Heterodimer Protein, Twin-Strep&His Tag (Cat. No. GHL-E5283) with an affinity constant of 12 μM as determined in a SPR assay (Biacore 8K) (Routinely tested).



Anty-EBV gH/gL Antibody (E1D1) captured on CM5 chip via anti-mouse antibodies surface can bind Epstein-Barr virus Glycoprotein H&Glycoprotein L Heterodimer Protein, Twin-Strep&His Tag (Cat. No. GHL-E5283) with an affinity constant of 164 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Epstein-Bar Virus (EBV), belonging to gamma herpesvirus, is one of the most common human viruses which widely spread all over the world. EBV is the primary cause of infectious mononucleosis (IM) and is found to be related to several types of cancers. Although gp350 is the most abundant glycoprotein on viruses' surfaces, the research on using gp350 as vaccine antigen progresses slowly making glycoprotein H and glycoprotein L heterodimer (gH/gL) be considered as a candidate for vaccine development. gH/gL plays an important role in assisting the fusion process with the binding of Ephrin type-A receptor 2 (EphA2).

Clinical and Translational Updates