

Biotinylated Human HLA-A*02:01&B2M&EBV LMP2A (CLGGLTMMV) Complex Protein (Monomer, MALS verified)

Catalog # HLA-H82E5



Synonym

HLA-A*0201 & B2M & EBV LMP2A (CLGGLTMMV)

Source

Biotinylated Human HLA-A*02:01&B2M&EBV LMP2A (CLGGLTMMV) Complex Protein(HLA-H82E5) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Ile 308 (HLA-A*02:01) & Ile 21 - Met 119 (B2M) & CLGGLTMMV peptide (Accession # [AAA59606.1](#) (HLA-A*02:01) & [P61769-1](#) (B2M) & CLGGLTMMV).
Predicted N-terminus: Gly 25 & Ile 21

Molecular Characterization

Biotinylated Human HLA-A*02:01&B2M&EBV LMP2A (CLGGLTMMV) Complex Protein is produced by co-expression of HLA and B2M loaded with EBV LMP2A peptide.
This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).
The protein has a calculated MW of 36.3 kDa and 11.7 kDa. The protein migrates as 40-43 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>90% 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.

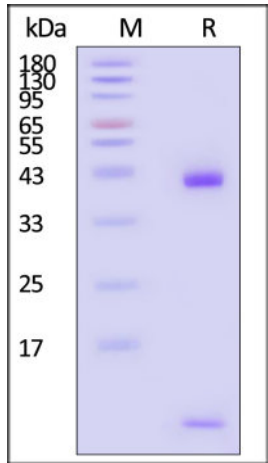
Reconstitution

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

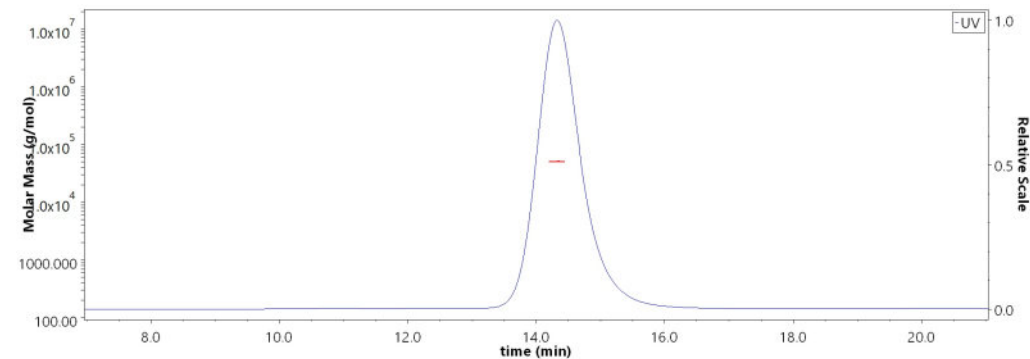
For long term storage, the product should be stored at lyophilized state at -20°C or lower.
Please avoid repeated freeze-thaw cycles.
This product is stable after storage at:
• -20°C to -70°C for 12 months in lyophilized state;
• -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human HLA-A*02:01&B2M&EBV LMP2A (CLGGLTMMV) Complex Protein 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](#)).

SEC-MALS



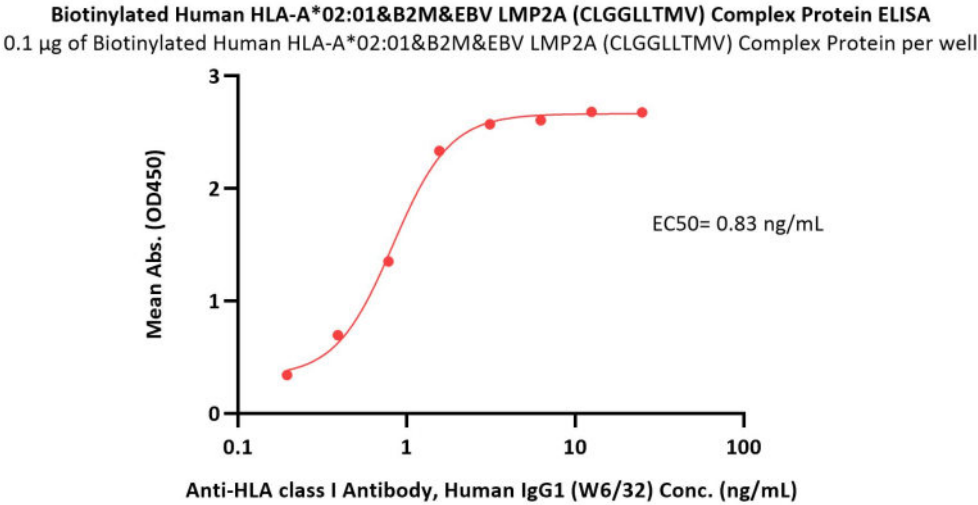
The purity of Biotinylated Human HLA-A*02:01&B2M&EBV LMP2A (CLGGLTMMV) Complex Protein (Cat. No. HLA-H82E5) is more than 90% and the molecular weight of this protein is around 45-60 kDa verified by SEC-MALS.



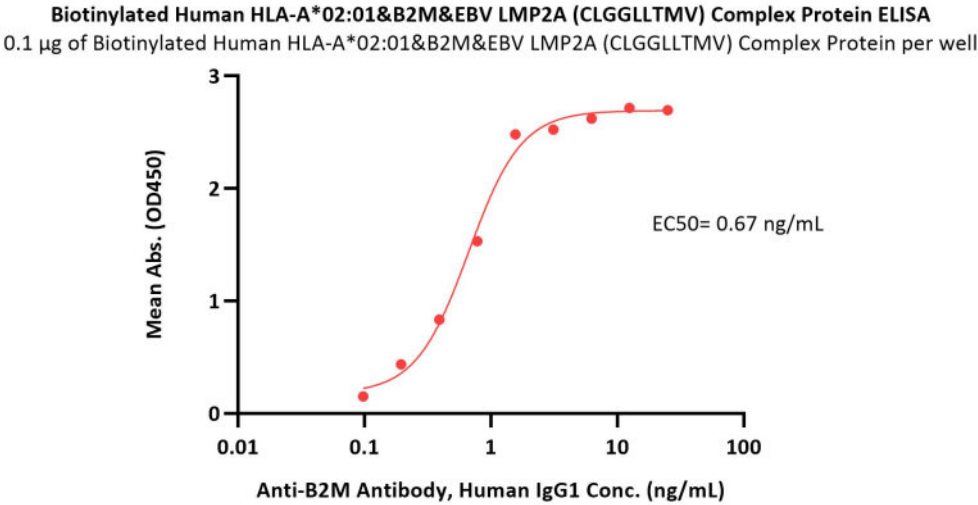


Report

Bioactivity-ELISA



Immobilized Biotinylated Human HLA-A*02:01&B2M&EBV LMP2A (CLGGLTMV) Complex Protein (Cat. No. HLA-H82E5) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Anti-HLA class I Antibody, Human IgG1 (W6/32) with a linear range of 0.2-3 ng/mL (QC tested).



Immobilized Biotinylated Human HLA-A*02:01&B2M&EBV LMP2A (CLGGLTMV) Complex Protein (Cat. No. HLA-H82E5) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Anti-B2M Antibody, Human IgG1 with a linear range of 0.1-3 ng/mL (Routinely tested).

Background

Epstein-Bar Virus (EBV), also known as human herpesvirus 4, belongs to gamma herpes virus family and is a very common human virus worldwide. EBV causes infectious mononucleosis (IM) and also associates to some specific types of cancers such as Burkitt’s lymphoma (BL) and gastric carcinoma (GC). Glycoprotein B (gB) plays an important role in viral entry by binding with $\alpha\beta6/\alpha\beta8$ integrins to trigger the membrane fusion and entry process of epithelial cells, which makes it become an great target for EBV research. Epstein-Bar Virus (EBV), also known as human herpesvirus 4, belongs to gamma herpes virus family and is a very common human virus worldwide. EBV causes infectious mononucleosis (IM) and also associates to some specific types of cancers such as Burkitt’s lymphoma (BL) and gastric carcinoma (GC). Glycoprotein B (gB) plays an important role in viral entry by binding with $\alpha\beta6/\alpha\beta8$ integrins to trigger the membrane fusion and entry process of epithelial cells, which makes it become an great target for EBV research. The Human HLA-A*0201 EBV LMP2A (CLGGLTMV) complex protein is a complex of HLA-A*0201 of the MHC Class I, B2M and CLGGLTMV peptide of the EBV LMP2A.

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