

# Biotinylated Human HLA-A\*02:01&B2M&gp100 (YLEPGPVTA) Complex Protein (Monomer, MALS verified)

Catalog # HLG-H82E6



BIOSYSTEMS  
**Acro**

## Source

Biotinylated Human HLA-A\*02:01&B2M&gp100 (YLEPGPVTA) Complex Protein(HLG-H82E6) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Thr 305 (HLA-A\*02:01) & Ile 21 - Met 119 (B2M) & YLEPGPVTA peptide (Accession # [AAA59606.1](#) (HLA-A\*02:01) & [P61769](#) (B2M) & YLEPGPVTA).

Predicted N-terminus: Gly 25 & Tyr

## Molecular Characterization

Biotinylated Human HLA-A\*02:01&B2M&gp100 (YLEPGPVTA) Complex Protein is produced by co-expression of HLA and B2M loaded with gp100 peptide.

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 36.0 kDa and 13.7 kDa. The protein migrates as 36-40 kDa, 17 kDa and 15 kDa 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

>95% as determined by SDS-PAGE.

>95% 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

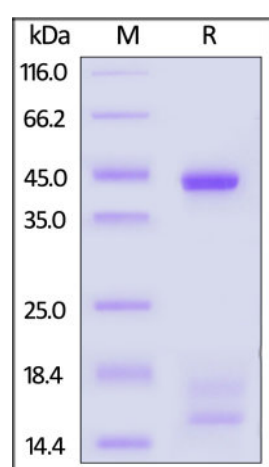
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

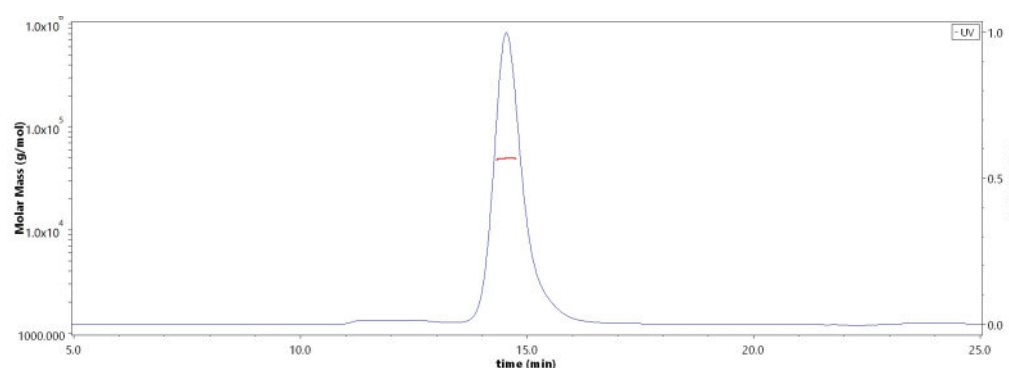
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



Biotinylated Human HLA-A\*02:01&B2M&gp100 (YLEPGPVTA) Complex Protein on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

## SEC-MALS



The purity of Biotinylated Human HLA-A\*02:01&B2M&gp100 (YLEPGPVTA) Complex Protein (Cat. No. HLG-H82E6) is more than 95% and the molecular weight of this protein is around 39-59 kDa verified by SEC-MALS.

[Report](#)

## Bioactivity-ELISA

Discounts, Gifts,  
and more!

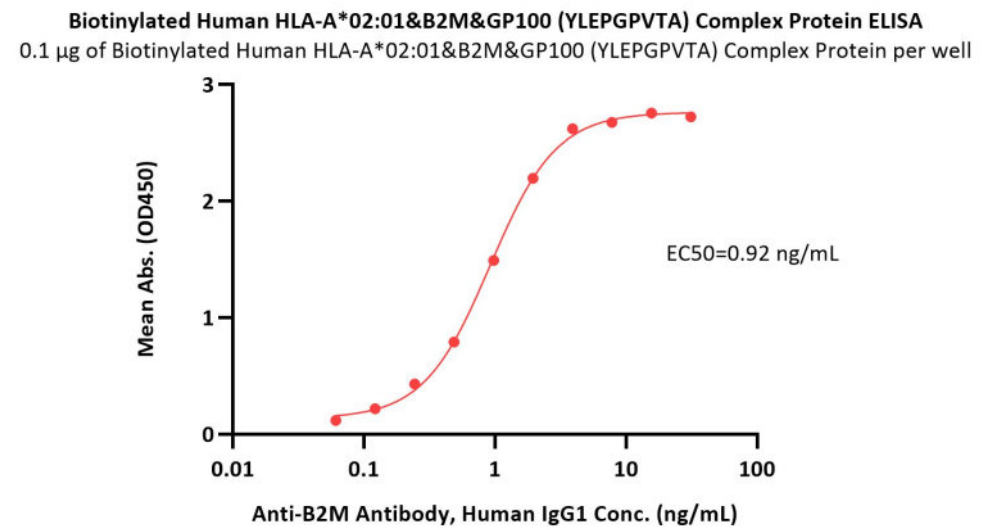
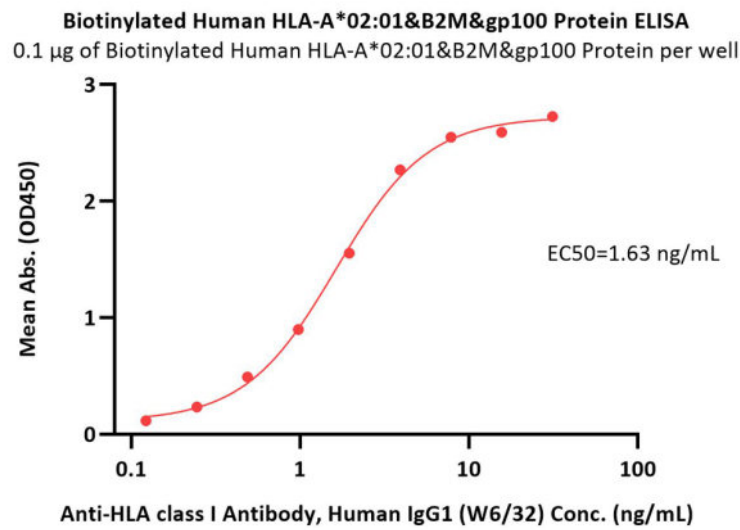


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Immobilized Biotinylated Human HLA-A\*02:01&B2M&gp100 (YLEPGPVTA) Complex Protein (Cat. No. HLG-H82E6) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Anti-HLA class I Antibody, Human IgG1 (W6/32) with a linear range of 0.1-4 ng/mL (QC tested).

Immobilized Biotinylated Human HLA-A\*02:01&B2M&gp100 Protein (Cat. No. HLG-H82E6) 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 0.1-2 ng/mL (Routinely tested).

## Background

Glycoprotein 100, is also well known as gp100 and Melanocyte protein PMEL. This antigen is a melanocyte-specific type I transmembrane glycoprotein and composed of 661 amino acids. Glycoprotein 100 is related to the tumor regression in metastatic melanoma patients after adoptive therapy, by which its epitopes being recognized by tumor lymphocytes and T-cells. The gp100<sub>280-288</sub>(YLEPGPVTA) was originally shown to be recognized by HLA-A\*0201 tumor-infiltrating lymphocytes from melanoma patients, and therefore it is widely been studied in TCR -T studies. The Human HLA-A\*0201 gp100 (YLEPGPVTA) complex protein is a complex of HLA-A\*0201 of the MHC Class I, B2M and YLEPGPVTA peptide of the gp100.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.

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