Biotinylated Human HLA-A*03:01&B2M Monomer Protein (Peptide free, MALS verified)

Catalog # HLM-H82W6

Source

Biotinylated Human HLA-A*03:01&B2M Monomer Protein(HLM-H82W6) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Thr 305 (HLA-A*03:01) & Ile 21 - Met 119 (B2M) (Accession # P04439-1 (HLA-A*03:01) & P61769 (B2M)).
Predicted N-terminus: Gly 25 & Ile 21

Molecular Characterization

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

The protein has a calculated MW of 35.9 kDa and 11.7 kDa. The protein migrates as 40-43 kDa and 14 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

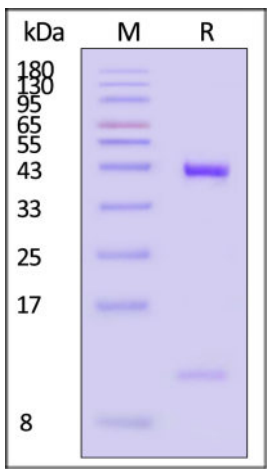
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

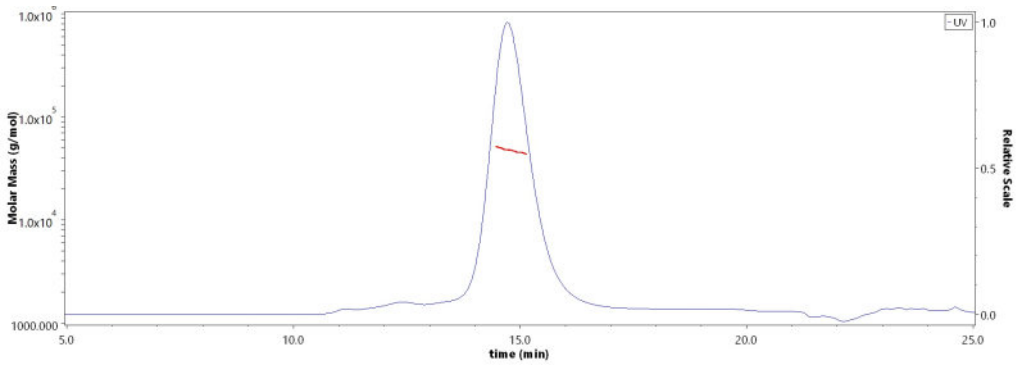
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



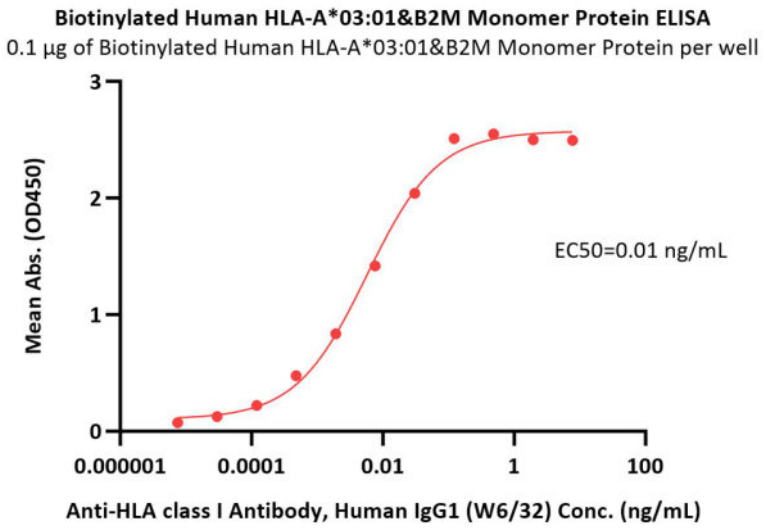
Biotinylated Human HLA-A*03:01&B2M Monomer Protein on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



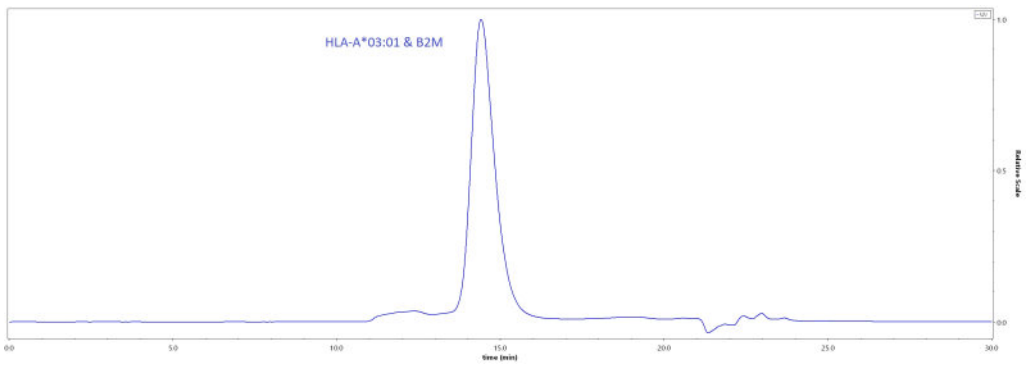
The purity of Biotinylated Human HLA-A*03:01&B2M Monomer Protein (Cat. No. HLM-H82W6) is more than 90% and the molecular weight of this protein is around 44-64 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Biotinylated Human HLA-A*03:01&B2M Monomer Protein (Cat. No. HLM-H82W6) 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 0.1-1 ng/mL (QC tested).

Bioactivity-Stability



The complex protein was verified stable after incubation under 25 degrees for 48 hours, and no significant dissociation of HLA-A*0301 and B2M was observed from HPLC-SEC analysis.

Background

Major histocompatibility complex (MHC), group of genes that code for proteins found on the surfaces of cells that help the immune system recognize foreign substances. MHC proteins are found in all higher vertebrates. In human beings the complex is also called the human leukocyte antigen (HLA) system.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.