Biotinylated Human HLA-C*07:02:01&B2M Monomer Protein (Peptide free, MALS verified)

Catalog # HLM-H82Ed

Synonym

HLA-C*070201 & B2M

Source

Biotinylated Human HLA-C*07:02:01&B2M Monomer Protein(HLM-H82Ed) is expressed from human 293 cells (HEK293). It contains AA Cys 25 - Ile 308 (HLA-C*07:02:01) & Ile 21 - Met 119 (B2M) (Accession # P10321-1 (HLA-C*07:02:01) & P61769-1 (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 36.1 kDa and 11.7 kDa. The protein migrates as 40-43 kDa and 10 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 / rFC 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

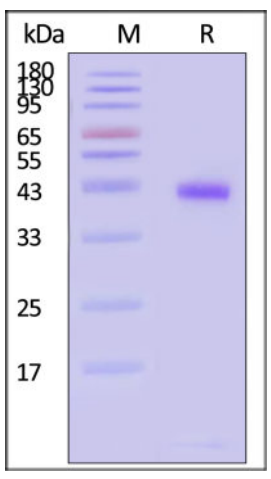
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

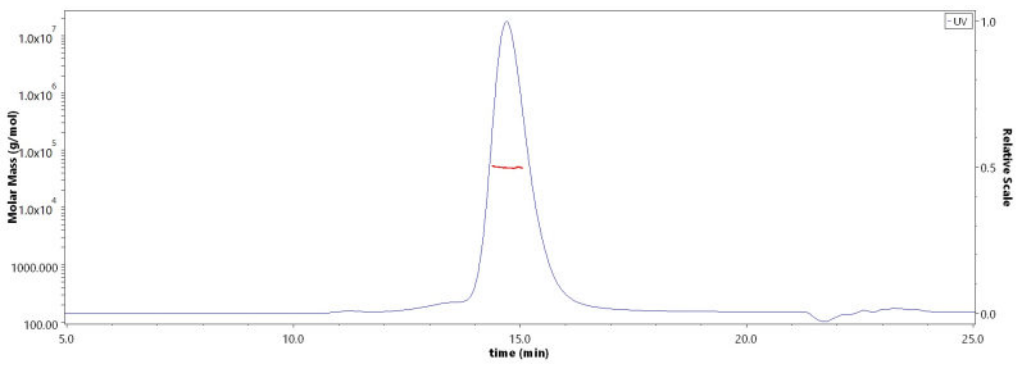
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human HLA-C*07:02:01&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

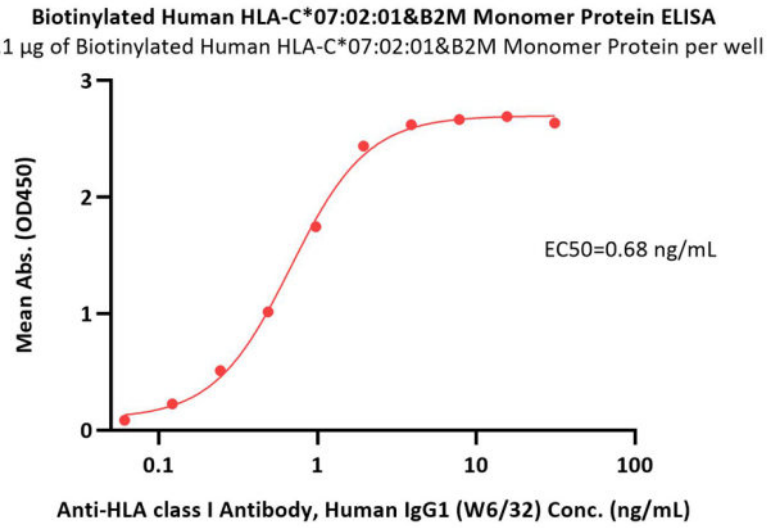


The purity of Biotinylated Human HLA-C*07:02:01&B2M Monomer Protein (Cat. No. HLM-H82Ed) is more than 90% and the molecular weight of this protein is around 45-60 kDa verified by SEC-MALS.
Report

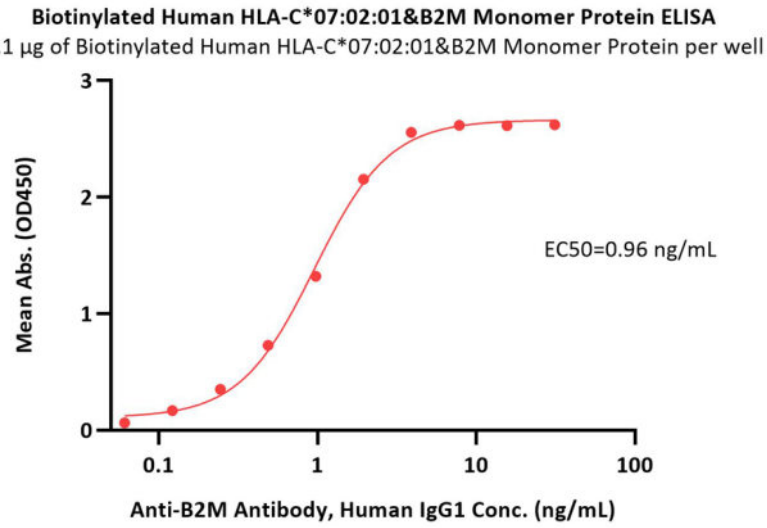
Bioactivity-ELISA

Biotinylated Human HLA-C*07:02:01&B2M Monomer Protein (Peptide free, MALS verified)

Catalog # HLM-H82Ed



Immobilized Biotinylated Human HLA-C*07:02:01&B2M Monomer Protein (Cat. No. HLM-H82Ed) 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 0.1-2 ng/mL (QC tested).



Immobilized Biotinylated Human HLA-C*07:02:01&B2M Monomer Protein (Cat. No. HLM-H82Ed) 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

HLA-A, B, and C are transmembrane glycoproteins in the major histocompatibility complex 1 (MHC I) family. The C receptor is a heterodimer consisting of a HLA-C mature gene product (heavy chain) and β2-microglobulin (light chain). The mature C chain is anchored in the membrane. HLA class I molecules play a central role in the immune system by presenting peptides derived from endoplasmic reticulum lumen. HLA-C are expressed in nearly all cells, and present small peptides to the immune system which surveys for non-self peptides.