Biotinylated Human HLA-A*02:01&B2M&HBV (FLLTKILTI) Complex Protein (Monomer, MALS verified)

Catalog # HLT-H82E7

Synonym

HLA-A*0201 & B2M & HBV (FLLTKILTI)

Source

Biotinylated Human HLA-A*02:01&B2M&HBV (FLLTKILTI) Complex Protein(HLT-H82E7) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Ile 308 (HLA-A*02:01) & Ile 21 - Met 119 (B2M) & FLLTKILTI peptide (Accession # AAA59606.1 (HLA-A*02:01) & P61769-1 (B2M) & FLLTKILTI).
Predicted N-terminus: Gly 25 & Ile 21

Molecular Characterization

Biotinylated Human HLA-A*02:01&B2M&HBV (FLLTKILTI) Complex Protein is produced by co-expression of HLA and B2M loaded with HBV 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 40-42 kDa and 14 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.

Purity

>90% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Supplied as 0.2 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

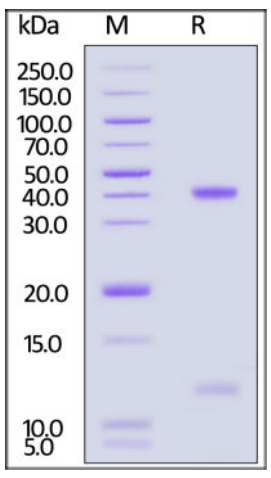
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

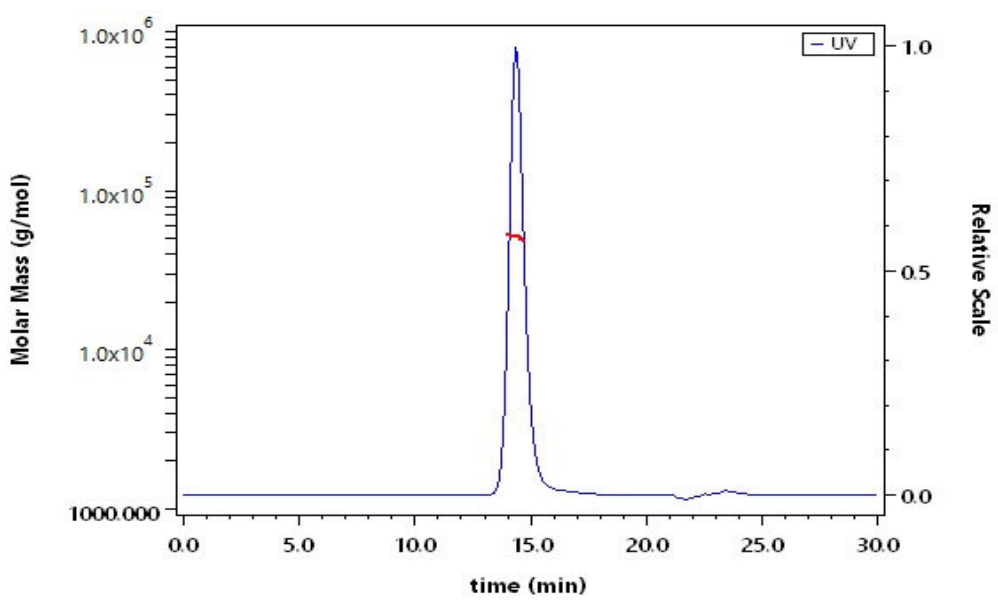
- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

SDS-PAGE



Biotinylated Human HLA-A*02:01&B2M&HBV (FLLTKILTI) 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%.

SEC-MALS

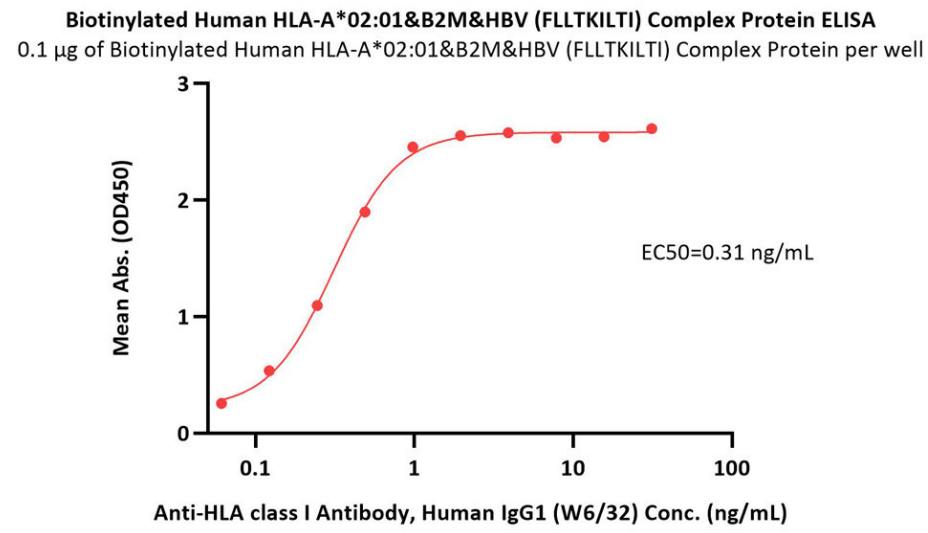


The purity of Biotinylated Human HLA-A*02:01&B2M&HBV (FLLTKILTI) Complex Protein (Cat. No. HLT-H82E7) is more than 95% and the molecular weight of this protein is around 50-70 kDa verified by SEC-MALS.
Report

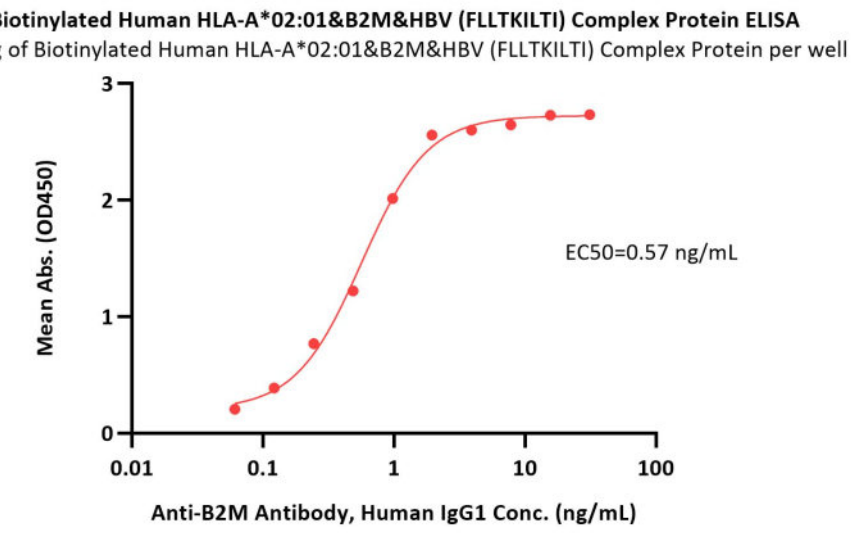
Bioactivity-ELISA

Biotinylated Human HLA-A*02:01&B2M&HBV (FLLTKILTI) Complex Protein (Monomer, MALS verified)

Catalog # HLT-H82E7



Immobilized Biotinylated Human HLA-A*02:01&B2M&HBV (FLLTKILTI) Complex Protein (Cat. No. HLT-H82E7) 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).



Immobilized Biotinylated Human HLA-A*02:01&B2M&HBV (FLLTKILTI) Complex Protein (Cat. No. HLT-H82E7) 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 0.1-1 ng/mL (Routinely tested).

Background

Hepatitis B is a potentially life-threatening liver infection caused by the hepatitis B virus (HBV). The hepatitis B virus attacks the liver and can cause both acute and chronic diseases that put people at high risk of death from cirrhosis and liver cancer. The virus is most commonly transmitted from mother to child during birth and delivery, as well as through contact with blood or other body fluids. Hepatitis B virus (HBV) is a member of the hepadnaviral family. The virus particle (virion) consists of an outer lipid envelope and an icosahedral nucleocapsid core composed of the core protein. The nucleocapsid encloses the viral DNA and a DNA polymerase that has reverse transcriptase activity. The outer envelope contains embedded proteins that are involved in viral binding of, and entry into, susceptible cells. The surface antigens (HBsAg) decorating the lipid envelope of HBV are produced in excess during the life cycle of the virus, and its presence in blood indicates current hepatitis B infection. The Human HLA-A*0201 HBV (FLLTKILTI) complex protein is a complex of HLA-A*0201 of the MHC Class I, B2M, and FLLTKILTI peptide of the HBV.