Biotinylated Human HLA-A*02:01&B2M&HIV Gag (SLYNTVATL) Complex Protein (Monomer, MALS verified)

Catalog # HLH-H82E8

Synonym

HLA-A*0201 & B2M & HIV Gag (SLYNTVATL)

Source

Biotinylated Human HLA-A*02:01&B2M&HIV Gag (SLYNTVATL) Complex Protein(HLH-H82E8) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Ile 308 (HLA-A*02:01) & Ile 21 - Met 119 (B2M) & SLYNTVATL peptide (Accession # AAA59606.1 (HLA-A*02:01) & P61769 (B2M) & SLYNTVATL).
Predicted N-terminus: Gly 25 & Ser

Molecular Characterization

Biotinylated Human HLA-A*02:01&B2M&HIV Gag (SLYNTVATL) Complex Protein is produced by co-expression of HLA and B2M loaded with HIV Gag 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 13.7 kDa. The protein migrates as 40-43 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

>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

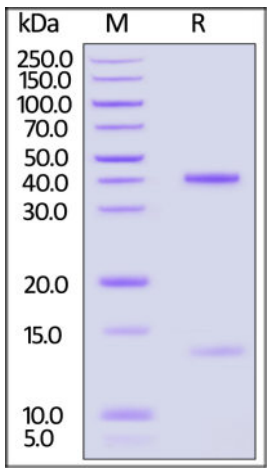
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

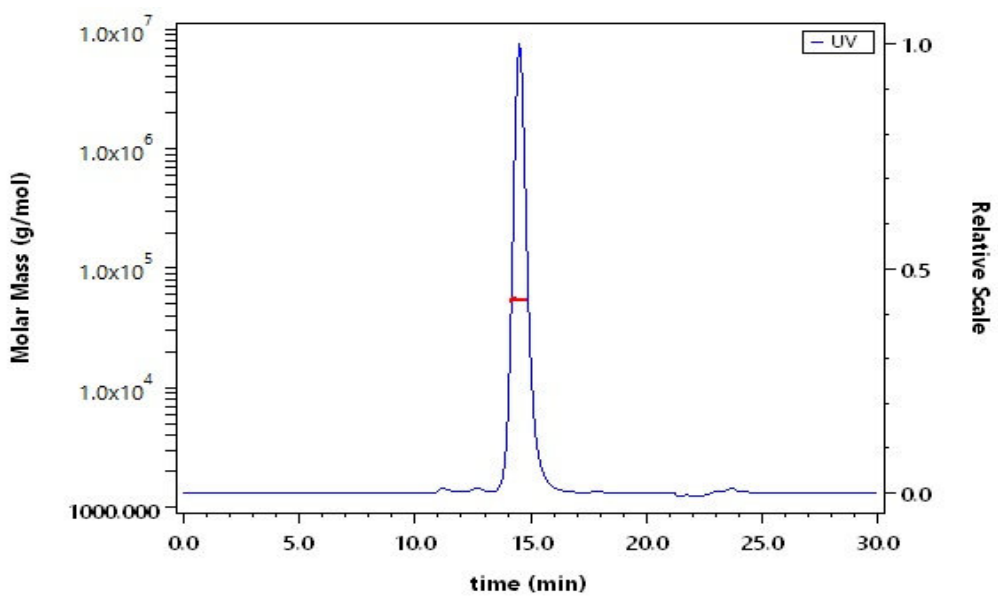
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human HLA-A*02:01&B2M&HIV Gag (SLYNTVATL) 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

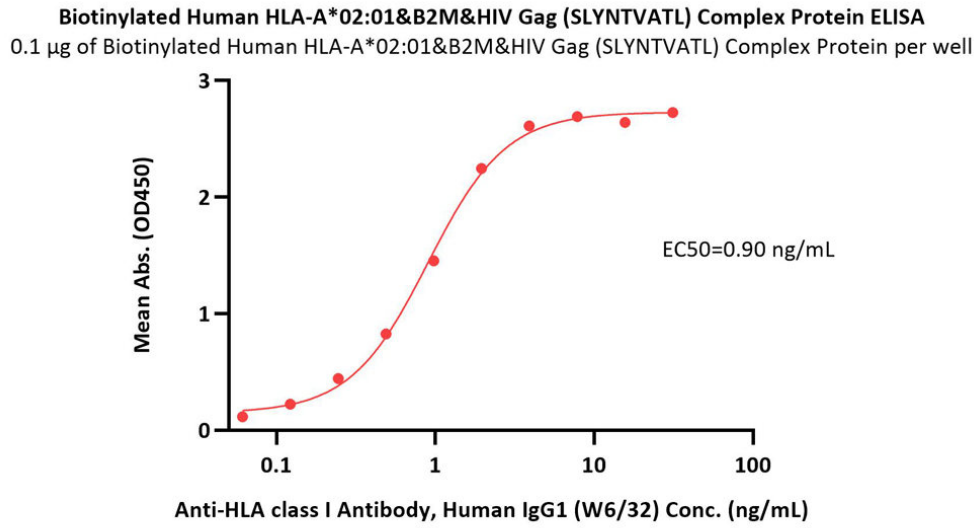


The purity of Biotinylated Human HLA-A*02:01&B2M&HIV Gag (SLYNTVATL) Complex Protein (Cat. No. HLH-H82E8) is more than 95% and the molecular weight of this protein is around 48-58 kDa verified by SEC-MALS.
Report

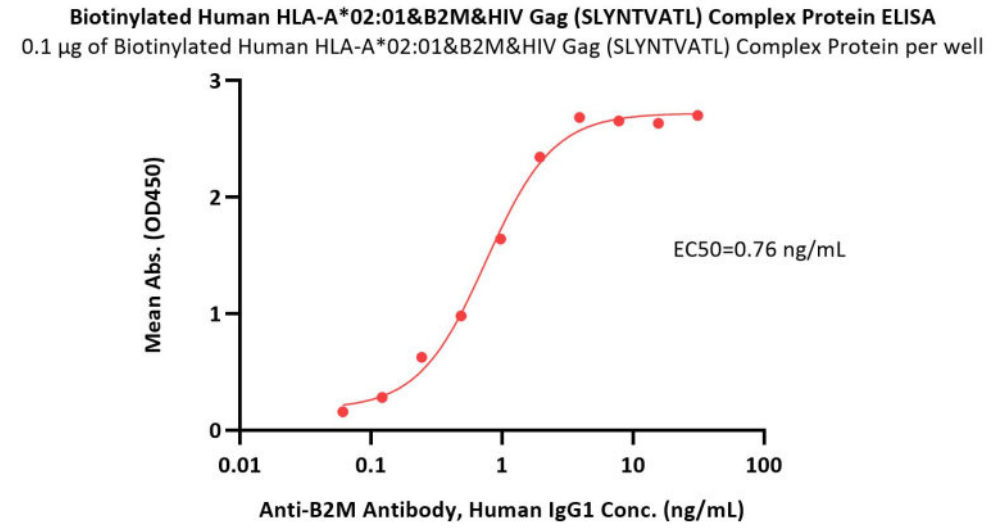
Bioactivity-ELISA

Biotinylated Human HLA-A*02:01&B2M&HIV Gag (SLYNTVATL) Complex Protein (Monomer, MALS verified)

Catalog # HLH-H82E8

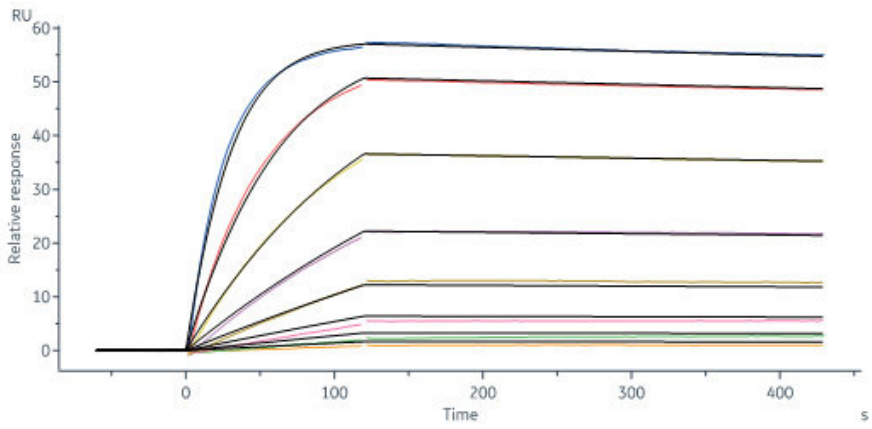


Immobilized Biotinylated Human HLA-A*02:01&B2M&HIV Gag (SLYNTVATL) Complex Protein (Cat. No. HLH-H82E8) at 1 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Anti-HLA class I Antibody, Human IgG1 (W6/32) with a linear range of 0.1-2 ng/mL (QC tested).



Immobilized Biotinylated Human HLA-A*02:01&B2M&HIV Gag (SLYNTVATL) Complex Protein (Cat. No. HLH-H82E8) 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).

Bioactivity-SPR



HIV Gag TCR captured on Protein A Chip can bind Biotinylated HumanHLA-A*02:01&B2M&HIV Gag (SLYNTVATL) Complex Protein (Cat. No. HLH-H82E8) with an affinity constant of 0.345 nM as determined in SPR assay (Biacore 8K) (Routinely tested).

Background

HIV (human immunodeficiency virus) is a virus that attacks the body's immune system. If HIV is not treated, it can lead to AIDS (acquired immunodeficiency syndrome). It can be transmitted via the exchange of a variety of body fluids from infected people, such as blood, breast milk, semen and vaginal secretions, And from a mother to her child during pregnancy and delivery. This disease can be managed by treatment regimens composed of a combination of antiretroviral (ARV) drugs. The Human HLA-A*0201 HIV (SLYNTVATL) complex protein is a complex of HLA-A*0201 of the MHC Class I, B2M, and SLYNTVATL peptide of the HIV.