Biotinylated Human HLA-A*02:01&B2M&CMV pp65 (NLVPMVATV) Complex Protein (Monomer, MALS verified)

Catalog # HLC-H82E5

Synonym

HLA-A*0201 & B2M & CMV pp65

Source

Biotinylated Human HLA-A*02:01&B2M&CMV pp65 (NLVPMVATV) Complex Protein(HLC-H82E5) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Ile 308 (HLA-A*02:01) & Ile 21 - Met 119 (B2M) & NLVPMVATV peptide (Accession # AAA59606.1 (HLA-A*02:01) & P61769 (B2M) & NLVPMVATV).
Predicted N-terminus: Gly 25 & Ile 21

Molecular Characterization

Biotinylated Human HLA-A*02:01&B2M&CMV pp65 (NLVPMVATV) Complex Protein is produced by co-expression of HLA and B2M loaded with CMV pp65 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 43-48 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.

Purity

>90% 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

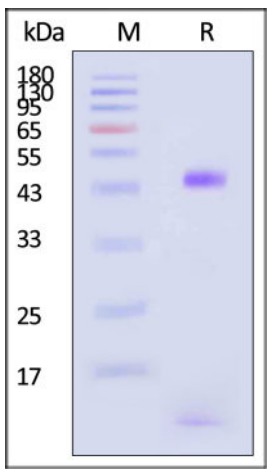
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

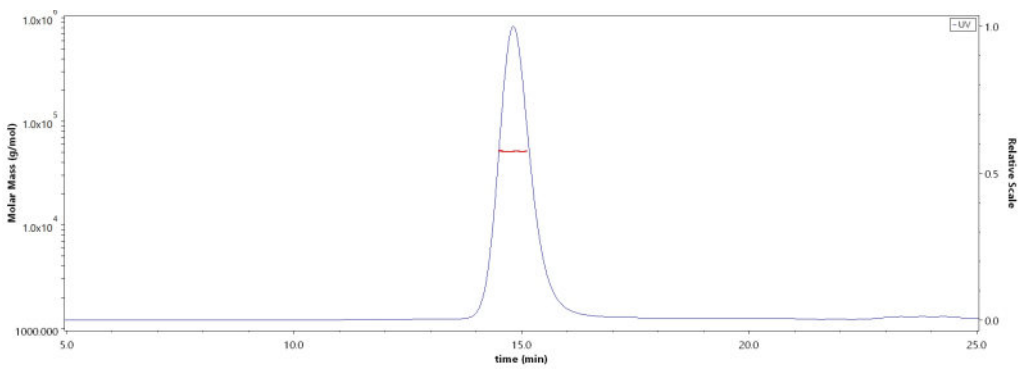
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human HLA-A*02:01&B2M&CMV pp65 (NLVPMVATV) Complex Protein on SDS-PAGE under reducing (R) condition. The gel was

SEC-MALS



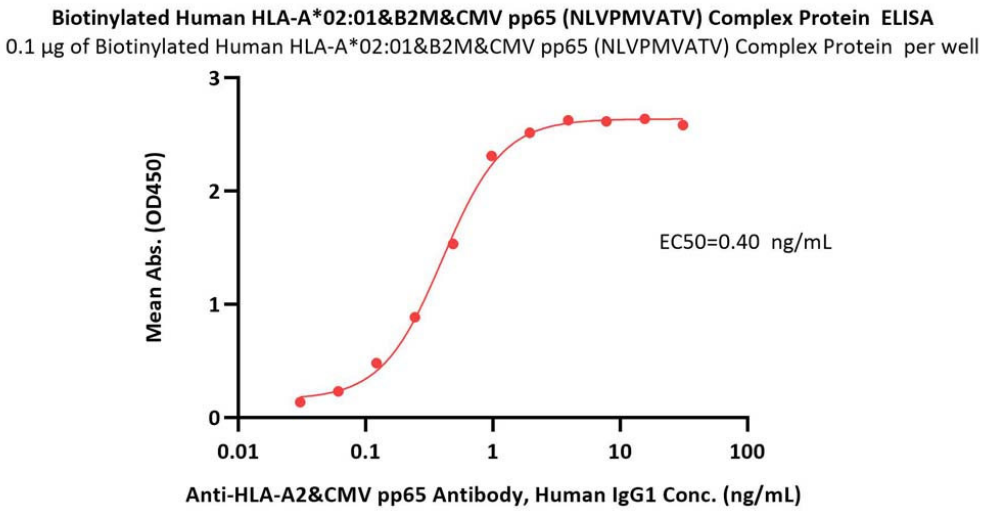
The purity of Biotinylated Human HLA-A*02:01&B2M&CMV pp65 (NLVPMVATV) Complex Protein (Cat. No. HLC-H82E5) is more than 95%

Discounts, Gifts, and more!

stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

and the molecular weight of this protein is around 45-60 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Biotinylated Human HLA-A*02:01&B2M&CMV pp65 (NLVPMVATV) Complex Protein (Cat. No. HLC-H82E5) at 1 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Anti-HLA-A2&CMV pp65 Antibody, Human IgG1 with a linear range of 0.1-10 ng/mL (QC tested).

Background

Cytomegalovirus (Cytomegalovirus) is a herpes viral DNA virus. Human cytomegalovirus (HCMV) can only infect humans and multiply in humans. The antibodies. After primary infection with CMV, the body can produce specific antibodies and killer T lymphocytes to activate NM cells. The antibody has limited CMV replication ability and has a certain resistance to reinfection of the same strain, but cannot resist the activation of antibody-dependent virus and the exogenous infection of other different strains of CMV. However, specific killer T lymphocytes and antibody-dependent cytotoxic cells can exert the greatest antiviral effect. The Human HLA-A*0201 CMV (NLVPMVATV) complex protein is a complex of HLA-A*0201 of the MHC Class I, B2M, and NLVPMVATV peptide of the CMV.

Clinical and Translational Updates