Biotinylated Human HLA-A*02:01&B2M&WT-1 (RMFPNAPYL) Complex Protein (Monomer, MALS verified)

Catalog # HLW-H82E5

Synonym

HLA-A*02:01 & B2M & WT-1

Source

Biotinylated Human HLA-A*02:01&B2M&WT-1 (RMFPNAPYL) Complex Protein(HLW-H82E5) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Thr 305 (HLA-A*02:01) & Ile 21 - Met 119 (B2M) & RMFPNAPYL peptide (Accession # AAA59606.1 (HLA-A*02:01) & P61769 (B2M) & RMFPNAPYL).
Predicted N-terminus: Gly 25 & Arg

Molecular Characterization

Biotinylated Human HLA-A*02:01&B2M&WT-1 (RMFPNAPYL) Complex Protein is produced by co-expression of HLA and B2M loaded with WT-1 peptide.

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

The protein has a calculated MW of 36.0 kDa and 13.9 kDa. The protein migrates as 42-45 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

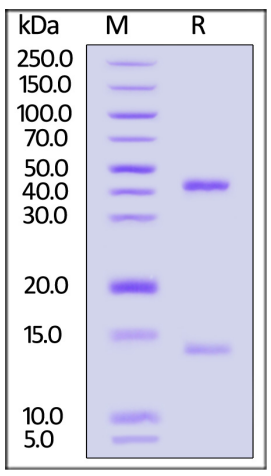
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

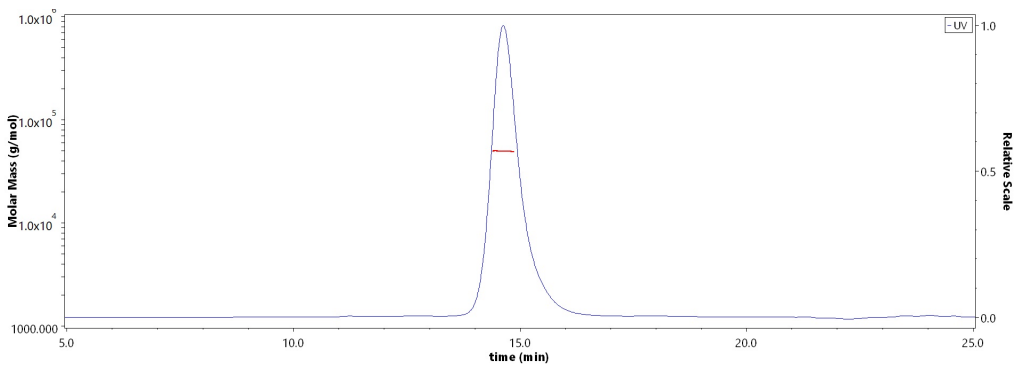
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human HLA-A*02:01&B2M&WT-1 (RMFPNAPYL) 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

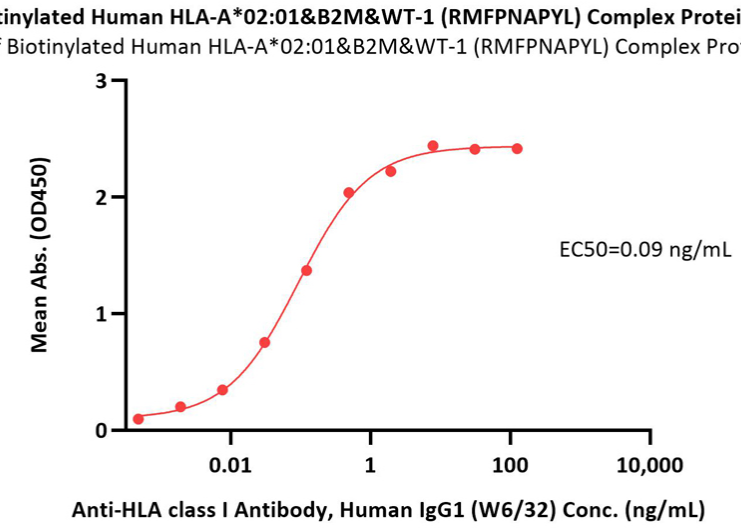


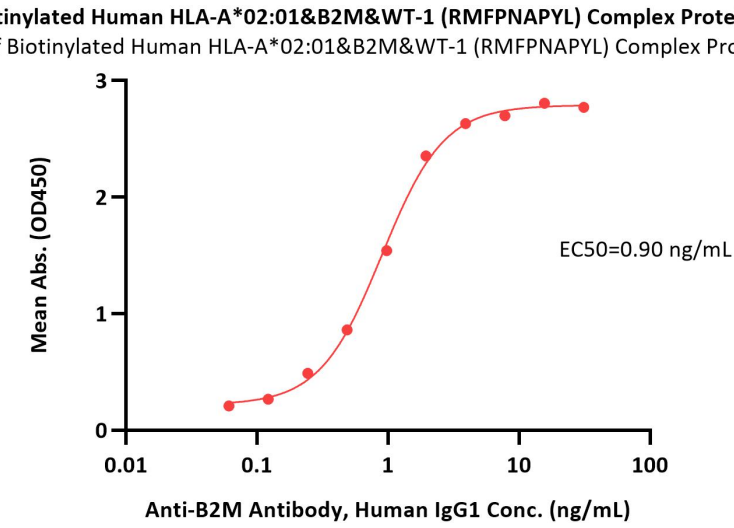
The purity of Biotinylated Human HLA-A*02:01&B2M&WT-1 (RMFPNAPYL) Complex Protein (Cat. No. HLW-H82E5) is more than 95% and the molecular weight of this protein is around 40-59 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA

Biotinylated Human HLA-A*02:01&B2M&WT-1 (RMFPNAPYL) Complex Protein (Monomer, MALS verified)

Catalog # HLW-H82E5





Immobilized Biotinylated Human HLA-A*02:01&B2M&WT-1 (RMFPNAPYL) Complex Protein (Cat. No. HLW-H82E5) 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 0.0005-0.49 ng/mL ng/mL (QC tested).

Immobilized Biotinylated Human HLA-A*02:01&B2M&WT-1 (RMFPNAPYL) Complex Protein (Cat. No. HLW-H82E5) 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

Wilms tumor gene 1 (WT1)，is an attractive target antigen for leukemia and solid cancer. WT1-specific adoptive immunotherapy has developed for tumor treatment in recent years. WT1 has been proved wildly expressed in breast, colon and ovarian cancer. It participates in cell growth, differentiation and apoptosis regulation. The WT1127-134 (RMFPNAPYL) was shown to be recognized by HLA-A*0201 tumor-infiltrating lymphocytes from melanoma patients, and therefore it is widely been studied in TCR-T studies. The Human HLA-A*0201 WT-1 (RMFPNAPYL) complex Protein is a complex of HLA-A*0201 of the MHC Class I, B2M and RMFPNAPYL peptide of the WT-1.