

Biotinylated Chimeric HLA-A*02:01 (H-2Kb α 3)&B2M&GP100 (YLEPGPVTA) Complex Protein (Monomer, MALS verified)

Catalog # HLG-H82E9



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Source

Biotinylated Chimeric HLA-A*02:01 (H-2Kb α 3)&B2M&GP100 (YLEPGPVTA) Complex Protein (HLG-H82E9) is expressed from human 293 cells (HEK293). It contains AA YLEPGPVTA peptide & Ile 21 - Met 119 (Human B2M) & Gly 25 - Thr 206 (Human HLA-A*02:01) & Asp 204 - Trp 295 (Mouse H-2Kb) (Accession # [YLEPGPVTA](#) & [P61769](#) (B2M) & [AAA59606.1](#) (HLA-A*02:01) & P01901 (H-2Kb)).

Predicted N-terminus: Tyr

Molecular Characterization

Biotinylated Chimeric HLA-A*02:01 (H-2Kb α 3)&B2M&GP100 (YLEPGPVTA) Complex Protein is produced by co-expression of HLA, H-2Kb and B2M loaded with GP100 peptide.

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

The protein has a calculated MW of 50.3 kDa. The protein migrates as 50-53 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 μ g by the LAL method.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μ m 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

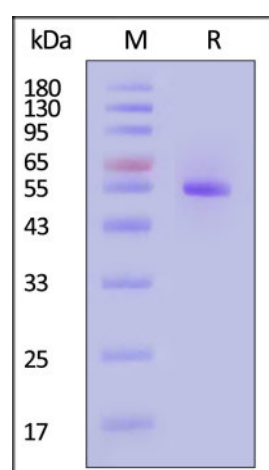
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

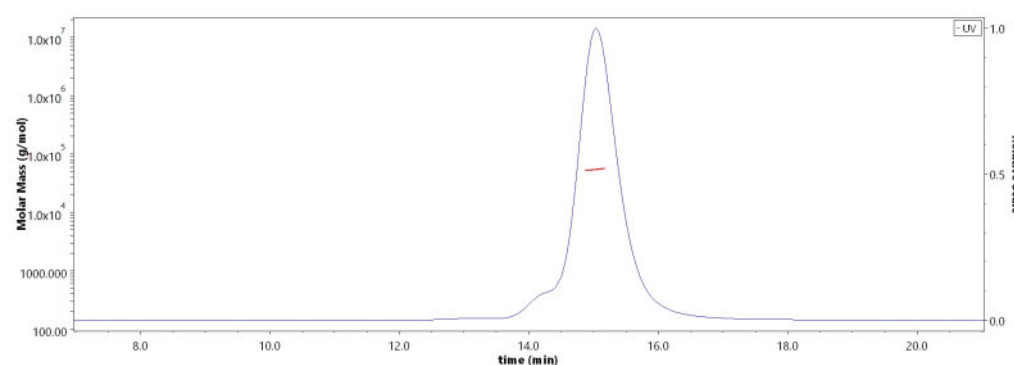
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Chimeric HLA-A*02:01 (H-2Kb α 3)&B2M&GP100 (YLEPGPVTA) 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% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



The purity of Biotinylated Chimeric HLA-A*02:01 (H-2Kb α 3)&B2M&GP100 (YLEPGPVTA) Complex Protein (Cat. No. HLG-H82E9) is more than 90% and the molecular weight of this protein is around 50-65 kDa verified by SEC-MALS.

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Background

Glycoprotein 100, is also well known as gp100 and Melanocyte protein PMEL. This antigen is a melanocyte-specific type I transmembrane glycoprotein and composed of 661 amino acids. Glycoprotein 100 is related to the tumor regression in metastatic melanoma patients after adoptive therapy, by which its epitopes being recognized by tumor lymphocytes and T-cells. The gp100²⁸⁰⁻²⁸⁸(YLEPGPVTA) was originally 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 Mouse H-2Kb gp100 (YLEPGPVTA) complex protein is a complex of HLA-A*0201 & H-2Kb of the MHC Class I, hB2M and YLEPGPVTA peptide of the gp100.

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