Biotinylated Mouse FcRn / FCGRT&B2M Heterodimer Protein, Avitag™,His Tag&Twin-Strep Tag (MALS & BLI-verified)

Catalog # FCM-M82W6

Synonym

FcRn,FCGRT & B2M

Source

MABSol® Biotinylated Mouse FcRn Heterodimer Protein, Avitag,His Tag&Twin-Strep Tag (FCM-M82W6) is expressed from human HEK293 cells. It contains AA Ser 22 - Ser 297 (FCGRT) & Ile 21 - Met 119 (B2M) (Accession # Q61559-1 (FCGRT) & P01887-1 (B2M)).
Predicted N-terminus: Ser 22 (FCGRT) & Ile 21 (B2M)

Molecular Characterization

Biotinylated Mouse FcRn Heterodimer Protein, Avitag,His Tag&Twin-Strep Tag, produced by co-expression of FCGRT and B2M, has a calculated MW of 34.7 kDa (FCGRT) and 14.7 kDa (B2M). Subunit FCGRT is fused with an Avi tag (Avitag™) at the C-terminus, followed by a polyhistidine tag and subunit Beta-2 microglobulin (B2M) is fused with Twin-Strep tag at the C-terminus. The reducing (R) protein migrates as 45-50 kDa (FCGRT) and 15 kDa (B2M) respectively 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

>95% as determined by SDS-PAGE.

>90% 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

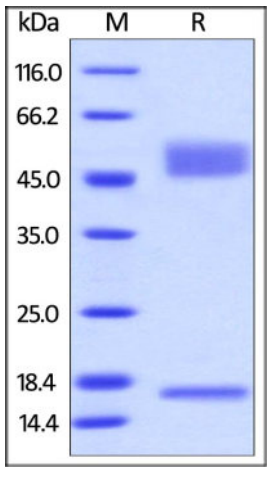
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

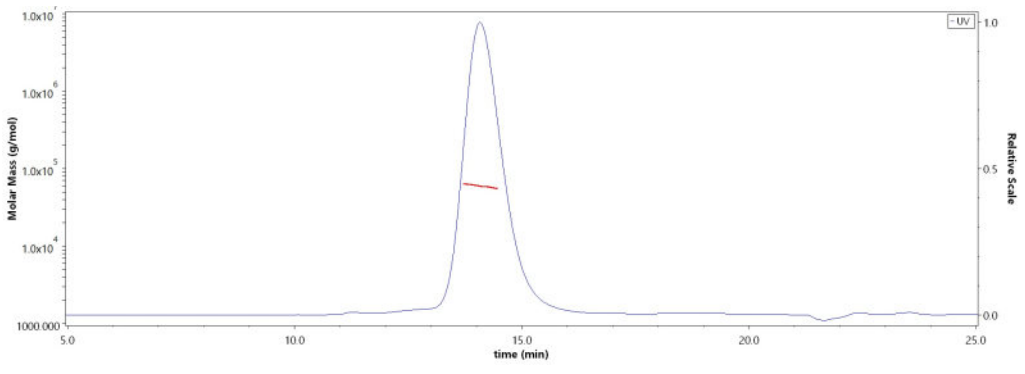
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Mouse FcRn Heterodimer Protein, Avitag,His Tag&Twin-Strep Tag on SDS-PAGE under reducing (R) condition. The gel was stained with

SEC-MALS

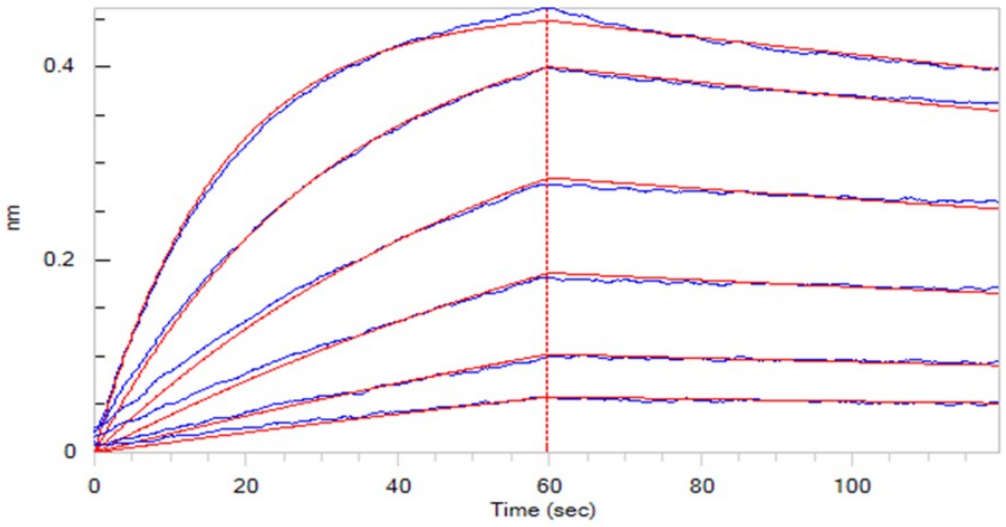


The purity of Biotinylated Mouse FcRn Heterodimer Protein, Avitag,His Tag&Twin-Strep Tag (Cat. No. FCM-M82W6) is more than 90% and the

Coomassie Blue. The purity of the protein is greater than 95%.

molecular weight of this protein is around 55-65 kDa verified by SEC-MALS.
Report

Bioactivity-BLI



Loaded Biotinylated Mouse FcRn Heterodimer Protein, Avitag,His Tag&Twin-Strep Tag (Cat. No. FCM-M82W6) on SA Biosensor, can bind Herceptin with an affinity constant of 3.38 nM as determined in BLI assay (ForteBio Octet Red96e) (QC tested).

Background

FCGRT & B2M heterodimer protein (FcRn complex) consist of two subunits: p51 (equivalent to FCGRT), and p14 (equivalent to beta-2-microglobulin), and forms an MHC class I-like heterodimer. Fc fragment of IgG, receptor, transporter, alpha (FCGRT) binds to the Fc region of monomeric immunoglobulins gamma and mediates the uptake of IgG from milk. FCGRT possible role in transfer of immunoglobulin G from mother to fetus. Beta-2-microglobulin (B2M) is a component of the class I major histocompatibility complex (MHC) and involved in the presentation of peptide antigens to the immune system.

Clinical and Translational Updates