



Synonym

FcRn,FCGRT & B2M

Source

MABSol® Biotinylated Cynomolgus / Rhesus macaque FcRn Heterodimer Protein, His,Avitag&Strep II Tag (FCM-C82W5) is expressed from human HEK293 cells. It contains AA Ala 24 - Ser 297 (FCGRT) & Ile 21 - Met 119 (B2M) (Accession # [Q8SPV9-1](#) (FCGRT) & Q8SPW0-1 (B2M)). In the region Ala 24 - Ser 297 (FCGRT) & Ile 21 - Met 119 (B2M), the AA sequence of Cynomolgus and Rhesus macaque FcRn (FCGRT & B2M) are homologous. Predicted N-terminus: Ala 24 (FCGRT) & Ile 21 (B2M)

Molecular Characterization

FcGRT (Ala 24 - Ser 297) Q8SPV9-1	Poly-his	Avi
B2M (Ile 21 - Met 119) Q8SPW0-1	Strep II	

Biotinylated Cynomolgus / Rhesus macaque FcRn Heterodimer Protein, His,Avitag&Strep II Tag, produced by co-expression of FCGRT and B2M, has a calculated MW of 34.1 kDa (FCGRT) and 13.0 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 a Strep II tag at the C-terminus. The reducing (R) protein migrates as 40 kDa (FCGRT) and 14 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.

Purity

>90% as determined by SDS-PAGE.

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

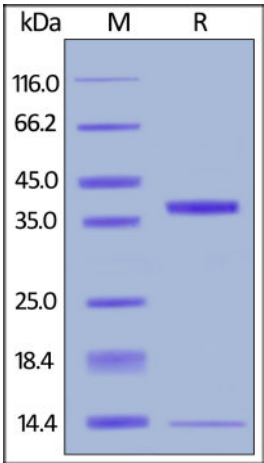
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

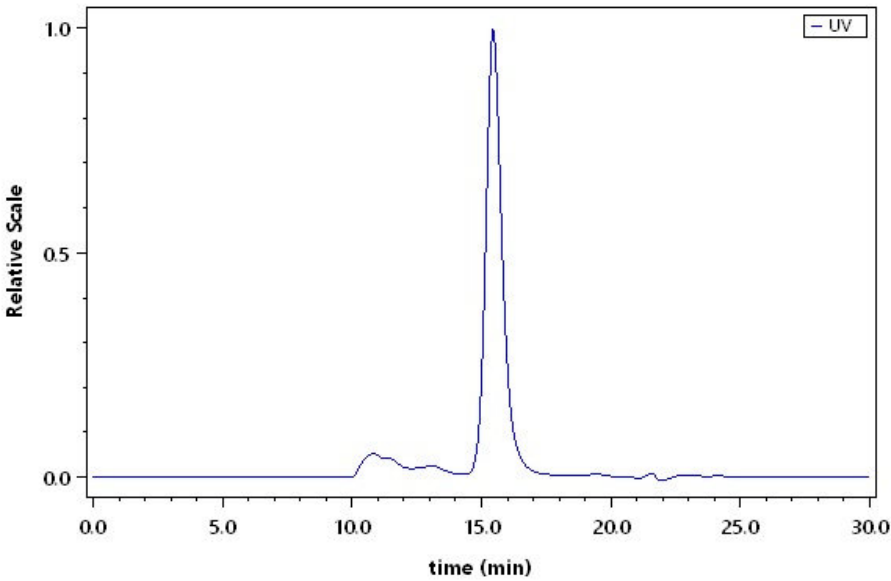
- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 12 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Cynomolgus / Rhesus macaque FcRn Heterodimer Protein, His,Avitag&Strep II Tag on SDS-PAGE under reducing (R) condition. The gel

SEC-HPLC



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**Biotinylated Cynomolgus / Rhesus macaque FcRn Heterodimer Protein, His,Avitag™&Strep II Tag (HPLC&SPR&BLI verified)**

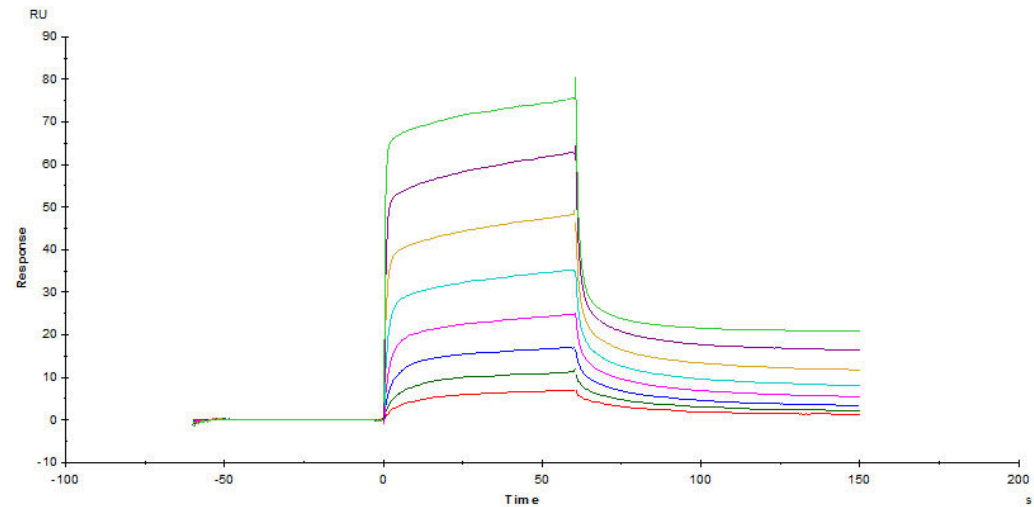
Catalog # FCM-C82W5



was stained with Coomassie Blue. The purity of the protein is greater than 90%.

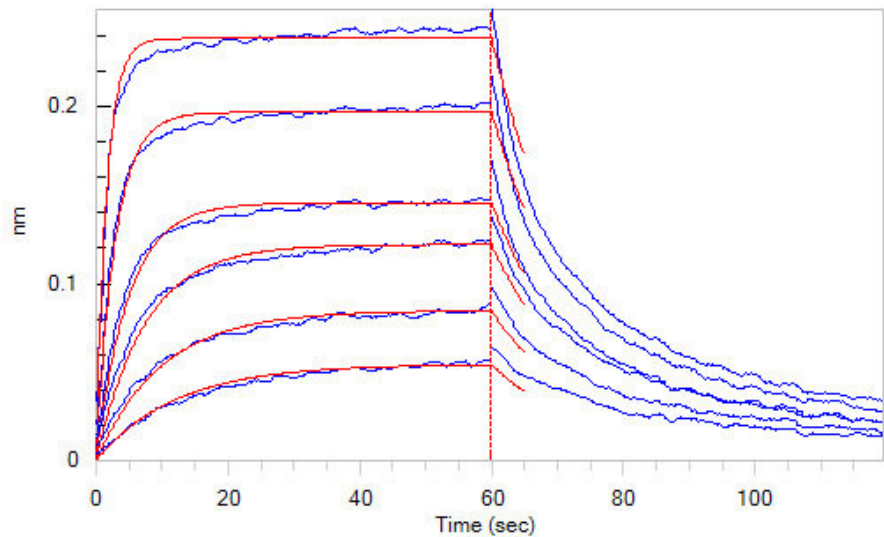
The purity of Biotinylated Cynomolgus / Rhesus macaque FcRn Heterodimer Protein, His,Avitag&Strep II Tag (Cat. No. FCM-C82W5) was greater than 85% as determined by SEC-HPLC.

**Bioactivity-SPR**



Captured Biotinylated Cynomolgus / Rhesus macaque FcRn Heterodimer Protein, His,Avitag&Strep II Tag (Cat. No. FCM-C82W5) on Biotin CAP - Series S sensor Chip can bind Herceptin® with an affinity constant of 0.241  $\mu$ M as determined in a SPR assay (Biacore T200) (QC tested).

**Bioactivity-BLI**



Loaded Biotinylated Cynomolgus / Rhesus macaque FcRn Heterodimer Protein, His,Avitag&Strep II Tag (Cat. No. FCM-C82W5) on SA Biosensor, can bind Herceptin with an affinity constant of 0.075  $\mu$ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely 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.

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