Porcine FcRn / FCGRT&B2M Heterodimer Protein, His Tag&Strep II Tag (MALS & SPR verified)

Catalog # FCM-P5280

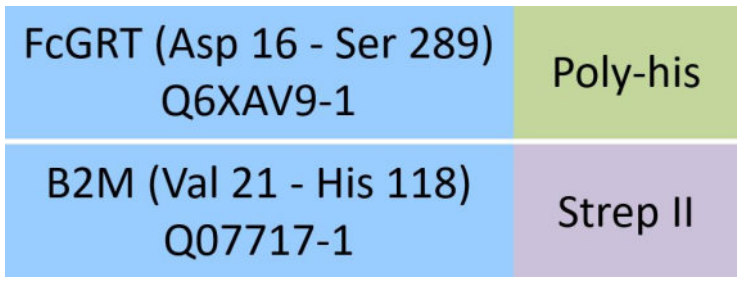
Synonym

FcRn,FCGRT & B2M

Source

Porcine FCGRT&B2M Heterodimer Protein, His Tag&Strep II Tag(FCM-P5280) is expressed from human 293 cells (HEK293). It contains AA Asp 16 - Ser 289 (FCGRT) & Val 21 - His 118 (B2M) (Accession # Q6XAV9-1 (FCGRT) & Q07717-1 (B2M)).
Predicted N-terminus: Asp 16 (FCGRT) & Val 21 (B2M)

Molecular Characterization



Porcine FCGRT&B2M Heterodimer Protein, His Tag&Strep II Tag, produced by co-expression of FCGRT and B2M, has a calculated MW of 32.3 kDa (FCGRT) and 12.8 kDa (B2M). Subunit FCGRT is fused with a polyhistidine tag at the C-terminus and subunit Beta-2 microglobulin (B2M) is fused with a Strep II tag at the C-terminus. The reducing (R) protein migrates as 32-35 kDa (FCGRT) and 14 kDa (B2M) respectively.

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

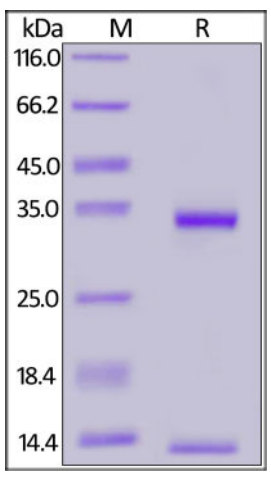
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

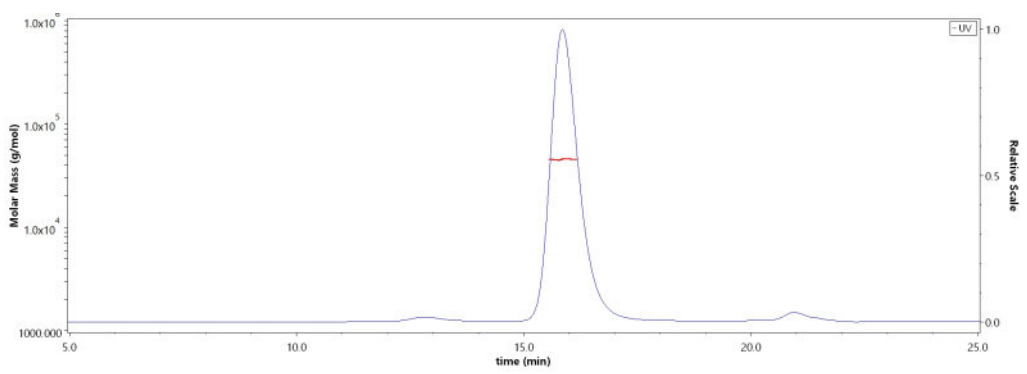
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



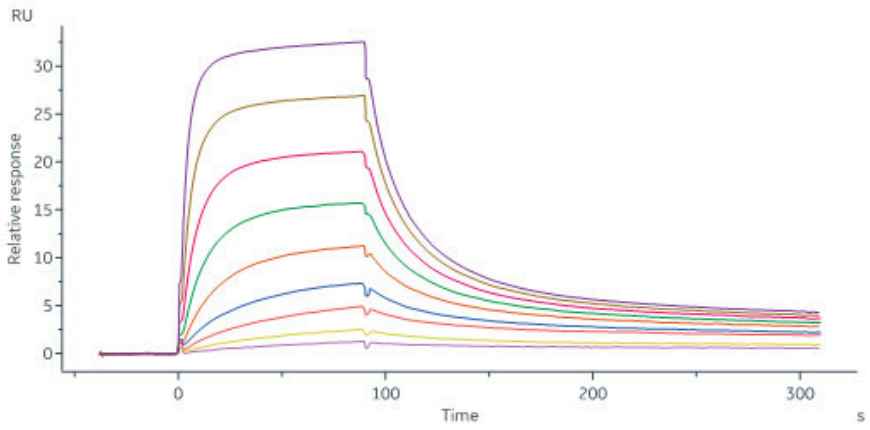
Porcine FCGRT&B2M Heterodimer Protein, His Tag&Strep II Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS

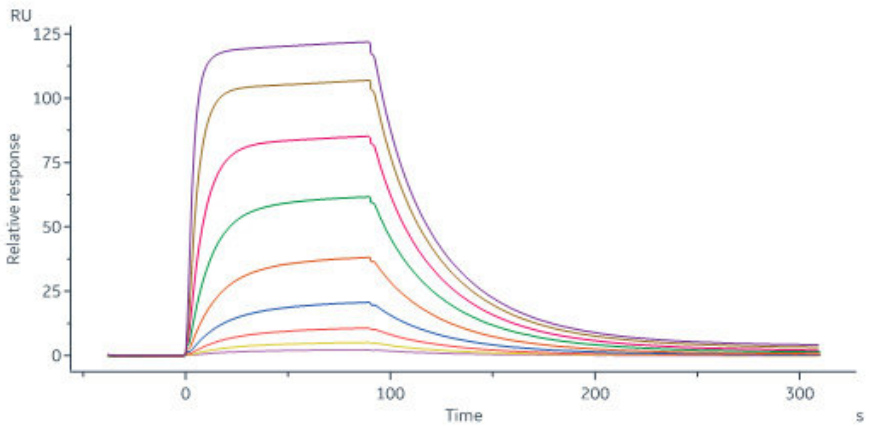


The purity of Porcine FCGRT&B2M Heterodimer Protein, His Tag&Strep II Tag (Cat. No. FCM-P5280) is more than 90% and the molecular weight of this protein is around 40-50 kDa verified by SEC-MALS.
Report

Bioactivity-SPR



Porcine FCGRT&B2M Heterodimer Protein, His Tag&Strep II Tag (Cat. No. FCM-P5280) immobilized on CM5 Chip can bind Trastuzumab with an affinity constant of 95.1 nM as determined in a SPR assay (Biacore 8K) (QC tested).



Trastuzumab immobilized on CM5 Chip can bind Porcine FCGRT&B2M Heterodimer Protein, His Tag&Strep II Tag (Cat. No. FCM-P5280) with an affinity constant of 81.5 nM as determined in a SPR assay (Biacore 8K) (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.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.