

## Technical Data Sheet

### Biotin Human FcRn / FCGRT&b2M heterodimer protein (C-His-Avi)

**Catalog Number:** 606203, 606204

**Size:** 25 ug, 100 ug

**Target Name:** FcRn, FCGRT & B2M

**Regulatory Status:** RUO

#### Product Details

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**Application:** ELISA, BLI

**Format:** Liquid, Biotinylated

**Expression Host:** HEK293

**Species:** Human

**Accession Number:** XP\_038512242.1 and NP\_001271408.1

**Sources:** Recombinant human Human FCGRT (Ala 24-Ser 297) with C-terminus His-Avi tag and Human b2M (Ile 21-MET119) with no tag are co-expressed in 293 cells. This protein was site-specifically labeled with Biotin by BirA ligase.

**Molecular Weight:** Recombinant Human FCGRT has the predicted molecular weight of 33.99 kD. Recombinant Human b2M with no tag has the predicted molecular weight of 11.73 kD. Under DTT-reducing conditions, the proteins migrate at approximately 35 kD and 13 kD respectively on SDS-PAGE.

**Affinity Tag:** C-His-Avi

**Purity:** >95% based on SDS-PAGE under reducing condition

**Formulation:** 1xPBS buffer, pH7.4, 0.22 µm filtered

**Endotoxin level:** Not tested

**Protein Concentration:** 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.

**Storage and Handling:** Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

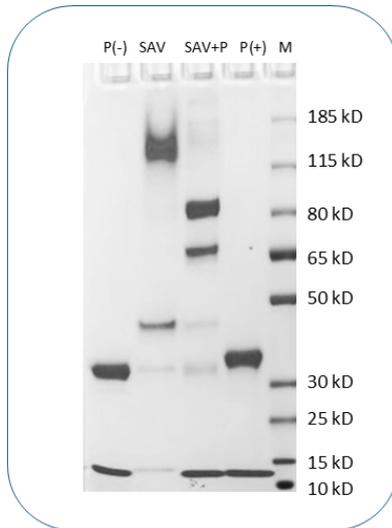
#### Background Information

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The human neonatal Fc receptor (FcRn) is a heterodimer composed of the alpha chain (FCGRT) and β2-microglobulin (β2M). FcRn is widely expressed in various cell types, including endothelial and epithelial cells, and is a key player in antibody-based therapeutics and immune regulation. Through binding IgG and albumin at acidic pH within endosomes, FcRn protects them from lysosomal degradation and recycles them back to the cell surface for release at neutral pH. This recycling mechanism extends the serum half-life of IgG and albumin, contributing to immune protection and maintaining protein homeostasis.

**Product Data**

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Human FcRn / FCGRT (C-His-Avi) &b2M is biotinylated by BirA ligase in vitro. Biotinylated Human FcRn / FCGRT (C-His-Avi) &b2M heterodimer protein on SDS-PAGE under reducing (P+) and non-reducing (P-) conditions. The purity of the purified protein appears to be greater than 95% based on reducing condition. Based on Gel shift Assay by co-incubation with Streptavidin, biotinylation efficiency is >95 % for Human FcRn .