

Porcine FcRn/FCGRT & B2M Heterodimer Protein

Catalog # FCM-P5280

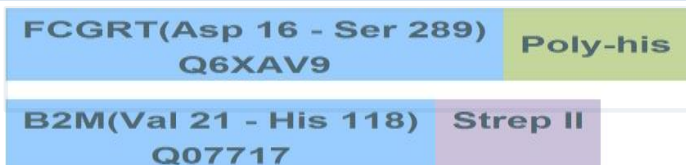
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Description

Source Porcine FcRn, His Tag, Strep 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 (FCGRT) & Q07717 (B2M)). Predicted N-terminus: Asp 16 (FCGRT) & Val 21 (B2M)

Predicted N-terminus Asp 16 (FCGRT) & Val 21 (B2M)

Protein Structure



Molecular Characterization Porcine FcRn, His Tag, Strep 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 36 kDa (FCGRT) and 15 kDa (B2M) respectively.

Endotoxin Less than 1.0 EU per µg by the LAL method.

Purity >95% as determined by SDS-PAGE.

Formulation and Storage

Formulation Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization. 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.

No activity loss was observed after storage at:

- 4-8°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

Background

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.

References

- (1) Goebel NA., et al., 2008, Mol. Biol. Cell 19 (12): 5490-505.
- (2) Lee TY., et al., 2008, Clin. Cancer Res. 14 (5): 1487-93.
- (3) Güssow D., et al., 1987, J. Immunol. 139 (9): 3132-8.
- (4) Gorevic P.D., et al., 1986, Proc. Natl. Acad. Sci. U.S.A. 83:7908-7912.

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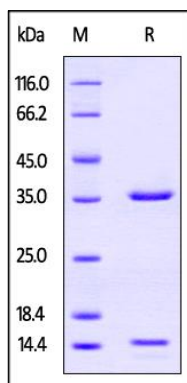
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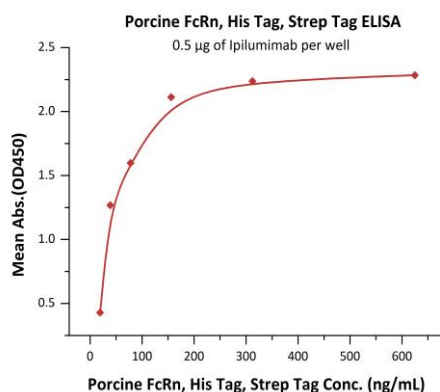
Assay Data

SDS-PAGE Data



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

Bioactivity Data



Immobilized Ipilumimab at 5 µg/mL (100 µL/well) can bind Porcine FcRn, His Tag, Strep Tag (Cat. No. FCM-P5280) with a linear range of 10-78 ng/mL (QC tested).

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