

Datasheet for ABIN2181085

FcRn Protein (AA 24-297) (His tag,Strep Tag)**2** Images**6** Publications[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	FcRn
Protein Characteristics:	AA 24-297
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This FcRn protein is labelled with His tag,Strep Tag.

Product Details

Brand:	MABSol®
Sequence:	AA 24-297
Characteristics:	Human FcRn / FCGRT & B2M heterodimer protein, produced by co-expression of FCGRT and B2M, has a calculated MW of 31.2 kDa FCGRT and 13.1 kDa (B2M). Subunit FCGRT is fused with his-tag at the C-terminus and subunit Beta-2 microglobulin (B2M) is fused with Strep II-tag at the C-terminus. The predicted N-terminus is Ala 24(FCGRT) & Ile 21(B2M). The reducing (R) protein migrates as 33 kDa (FCGRT) and 13 kDa (B2M) respectively due to glycosylation.
Purity:	>95 % as determined by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	FcRn
Alternative Name:	FcRn (FcRn Products)
Sub Type:	Fusionprotein
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.
Molecular Weight:	31.2 kDa (FCGRT) & 13.1 kDa (B2M)
Pathways:	Regulation of Leukocyte Mediated Immunity , Positive Regulation of Immune Effector Process

Application Details

Restrictions:	For Research Use only
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Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	No activity loss was observed after storage at: In lyophilized state for 1 year (4 °C), After reconstitution under sterile conditions for 3 months (-70 °C).

Publications

Product cited in:	Kisalu, Pereira, Ernste, Flores-Garcia, Idris, Asokan, Dillon, MacDonald, Shi, Chen, Pegu, Schön, Zavala, Balazs, Francica, Seder: "Enhancing durability of CIS43 monoclonal antibody by Fc mutation or AAV delivery for malaria prevention." in: JCI insight , Vol. 6, Issue 3, (2021) (PubMed). Zhao, Gao, Yu, Li, Zhang, Zhang, Lu, Gao, Guo: "Unidirectional transport of IgG by neonatal Fc
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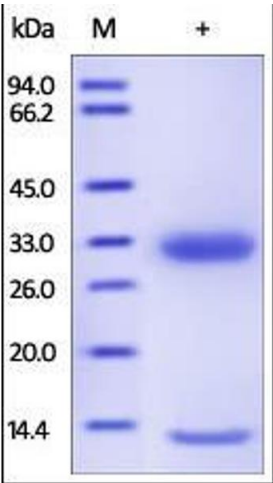
receptor in human thyrocytes varies across different IgG subclasses." in: **Molecular and cellular endocrinology**, Vol. 477, pp. 103-111, (2019) ([PubMed](#)).

Simonov, Ivanov, Smolov, Abbasova, Piskunov, Poteryaev: "Control of therapeutic IgG antibodies galactosylation during cultivation process and its impact on IgG1/FcγR interaction and ADCC activity." in: **Biologicals : journal of the International Association of Biological Standardization**, Vol. 58, pp. 16-21, (2019) ([PubMed](#)).

Yang, Kim, Seong, Tae, Kwon: "Comparative studies of the serum half-life extension of a protein via site-specific conjugation to a species-matched or -mismatched albumin." in: **Biomaterials science**, Vol. 6, Issue 8, pp. 2092-2100, (2018) ([PubMed](#)).

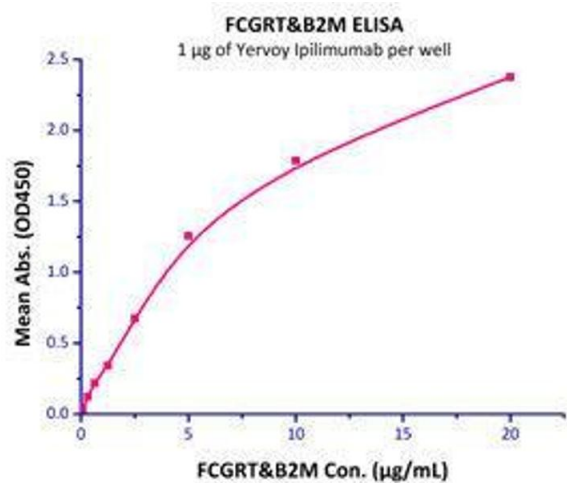
Zhou, Wang, Tong, Okamoto, Shen, Zaro: "Single chain Fc-dimer-human growth hormone fusion protein for improved drug delivery." in: **Biomaterials**, Vol. 117, pp. 24-31, (2017) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)



SDS-PAGE

Image 1. Human FcRn / FCGR2 & B2M on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.



Binding Studies

Image 2. Immobilized Yervoy Ipilimumab (Human IgG1) at 10 µg/mL (100 µL/well) can bind Human FcRn / FCGRT & B2M (Cat# FCM-H5286) with a linear range of 0.06-5 µg/mL.