Datasheet for ABIN2870582

FcRn Protein (AA 23-298) (His tag,Strep Tag,AVI tag,Biotin)

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2 Images

Overview

Quantity:	200 µg
Target:	FcRn
Protein Characteristics:	AA 23-298
Origin:	Rat
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This FcRn protein is labelled with His tag,Strep Tag,AVI tag,Biotin.

Product Details

Brand:	MABSol®,PrecisionAvi
Sequence:	AA 23-298
Specificity:	Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.
Characteristics:	The subunit FCGRT carries an Avi tag (Avitag™) at the C-terminus, followed by a polyhistidine tag. The subunit Beta-2 microglobulin (B2M) carries a Strep II tag at the C-terminus. The protein has a calculated MW of 34.7 kDa (FCGRT), 13.1 kDa (B2M) . The protein migrates as 45-50 kDa (FCGRT), 14 kDa (B2M) respectively on a SDS-PAGE gel under reducing (R) condition due to glycosylation.
Purity:	>95 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

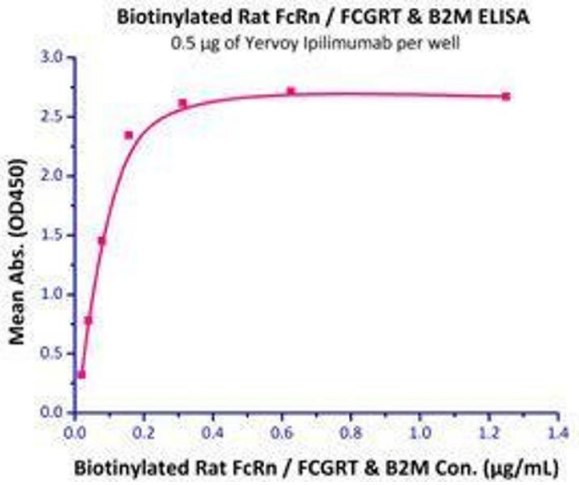
Target:	FcRn
Alternative Name:	FcRn (FcRn Products)
Background:	FCGRT & B2M heterodimer protein (FcRn complex) consist of two subunits: p51 (equivalent to FCGRT), and p14 (equivalent to beta-2-microglobulin), and forms an MHC class I-like heterodimer. Fc fragment of IgG, receptor, transporter, alpha (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:	34.7 kDa (FCGRT), 13.1 kDa (B2M)
Pathways:	Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process

Application Details

Comment:	Ready-to-use AvitagTM biotinylated protein: The product is exclusively produced using the AvitagTM technology. Briefly, a unique 15 amino acid peptide, the Avi tag, is introduced into the recombinant protein during expression vector construction. The single lysine residue in the Avi tag is enzymatically biotinylated by the E. Coli biotin ligase BirA. This single-point enzymatic labeling technique brings many advantages for commonly used binding assays. The biotinylation happens on the lysine residue of Avi tag, and therefore does NOT interfere with the target protein's natural binding activities. In addition, when immobilized on an avidin-coated surface, the protein orientation is uniform because the position of the Avi tag in the protein is precisely controlled.
Restrictions:	For Research Use only

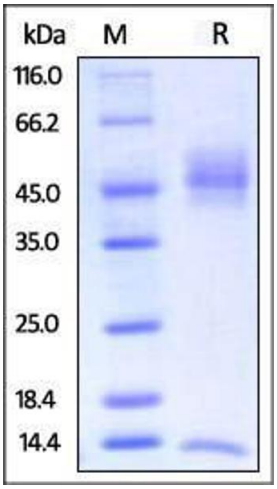
Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C



Binding Studies

Image 1. Immobilized Yervoy Ipilimumab at 5 µg/mL (100 µ L/well) can bind Biotinylated Rat FcRn / FCGRT & B2M with a linear range of 0.02-0.15 µg/mL.



SDS-PAGE

Image 2. Biotinylated Rat FcRn / FCGRT & 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%.