

Anti-FCRN/FCGRT Picoband Antibody

Catalog # ABO12553

Product Information

Application	WB, IHC-P, E
Primary Accession	Q61559
Host	Rabbit
Reactivity	Mouse
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for IgG receptor FcRn large subunit p51(FCGRT) detection. Tested with WB, IHC-P, ELISA in Mouse.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	14132
Other Names	IgG receptor FcRn large subunit p51, FcRn, IgG Fc fragment receptor transporter alpha chain, Neonatal Fc receptor, Fcgrt, Fcrn
Calculated MW	40093
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Mouse, By Heat ELISA , 0.1-0.5 μ g/ml, Mouse, - Western blot, 0.1-0.5 μ g/ml, Mouse
Subcellular Localization	Cell membrane; Single-pass type I membrane protein.
Tissue Specificity	Intestinal epithelium of suckling rodents. Expressed in neonatal intestine and fetal yolk sac.
Source	Eukaryota
Protein Name	IgG receptor FcRn large subunit p51
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E. coli-derived mouse FCGRT recombinant protein (Position: Q54-D291). Mouse FCGRT shares 70.2% and 92.4% amino acid (aa) sequence identity with human and rat FCGRT, respectively.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	Fcgrt
Synonyms	FcRn
Function	Cell surface receptor that transfers passive humoral immunity from the mother to the newborn. Binds to the Fc region of monomeric immunoglobulin gamma and mediates its selective uptake from milk (PubMed: 7504013). IgG in the milk is bound at the apical surface of the intestinal epithelium. The resultant FcRn-IgG complexes are transcytosed across the intestinal epithelium and IgG is released from FcRn into blood or tissue fluids. Throughout life, contributes to effective humoral immunity by recycling IgG and extending its half-life in the circulation. Mechanistically, monomeric IgG binding to FcRn in acidic endosomes of endothelial and hematopoietic cells recycles IgG to the cell surface where it is released into the circulation. In addition of IgG, regulates homeostasis of the other most abundant circulating protein albumin/ALB.
Cellular Location	Cell membrane {ECO:0000250 UniProtKB:P13599}; Single-pass type I membrane protein. Endosome membrane {ECO:0000250 UniProtKB:P55899}
Tissue Location	Intestinal epithelium of suckling rodents. Expressed in neonatal intestine and fetal yolk sac

Background

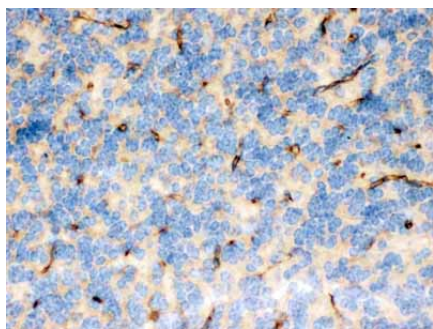
IgG receptor FcRn large subunit p51 is a protein that in humans is encoded by the *FCGRT* gene. This gene encodes a receptor that binds the Fc region of monomeric immunoglobulin G. The encoded protein transfers immunoglobulin G antibodies from mother to fetus across the placenta. This protein also binds immunoglobulin G to protect the antibody from degradation. In addition, it is postulated that long-range cis inactivation of the *FCGRT* gene is responsible for hypercatabolism of IgG in myotonic dystrophy. The *FCGRT* gene is closely situated to the *DMPK* gene, which is mutant in DM.

Images



Western blot analysis of FCGRT expression in mouse liver extract (lane 1). FCGRT at 50KD was detected using rabbit anti- FCGRT Antigen Affinity purified polyclonal antibody (Catalog # ABO12553) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method .

FCGRT was detected in paraffin-embedded sections of



mouse brain tissues using rabbit anti- FCGR2 Antigen Affinity purified polyclonal antibody (Catalog # ABO12553) at 1 µg/mL. The immunohistochemical section was developed using SABC method .

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.