

Anti-FCRN/FCGRT Picoband Antibody
Catalog # ABO12552**Specification**

Anti-FCRN/FCGRT Picoband Antibody - Product Information

Application	WB, IHC
Primary Accession	P55899
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for IgG receptor FcRn large subunit p51(FCGRT) detection. Tested with WB, IHC-P in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-FCRN/FCGRT Picoband Antibody - Additional Information

Gene ID 2217

Other Names

IgG receptor FcRn large subunit p51, FcRn, IgG Fc fragment receptor transporter alpha chain, Neonatal Fc receptor, FCGRT, FCRN

Calculated MW

39743 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Cell membrane ; Single-pass type I membrane protein .

Protein Name

IgG receptor FcRn large subunit p51

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

E. coli-derived human FCGRT recombinant protein (Position: Q56-E291). Human FCGRT shares 70.2% and 68.9% amino acid (aa) sequence identity with mouse 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.

Anti-FCRN/FCGRT Picoband Antibody - 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: [10933786](http://www.uniprot.org/citations/10933786), PubMed: [7964511](http://www.uniprot.org/citations/7964511)). 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 (PubMed: [10998088](http://www.uniprot.org/citations/10998088)). In addition of IgG, regulates homeostasis of the other most abundant circulating protein albumin/ALB (PubMed: [24469444](http://www.uniprot.org/citations/24469444), PubMed: [28330995](http://www.uniprot.org/citations/28330995)).

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:P13599}; Single-pass type I membrane protein.
Endosome membrane

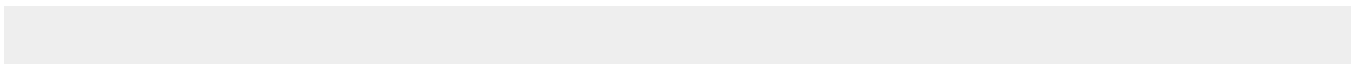
Tissue Location

Expressed in full-term placenta, heart, lung, liver, muscle, kidney, pancreas, and both fetal and adult small intestine.

Anti-FCRN/FCGRT Picoband Antibody - Protocols

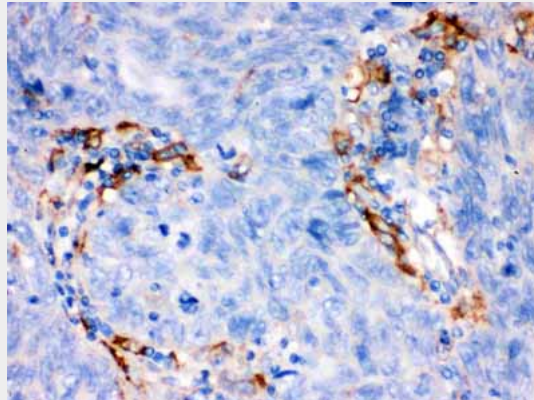
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-FCRN/FCGRT Picoband Antibody - Images



Western blot analysis of FCGRT expression in A549 whole cell lysates (lane 1). FCGRT at 50KD was detected using rabbit anti- FCGRT Antigen Affinity purified polyclonal antibody (Catalog # ABO12552) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method .



FCGRT was detected in paraffin-embedded sections of human lung cancer tissues using rabbit anti- FCGRT Antigen Affinity purified polyclonal antibody (Catalog # ABO12552) at 1 µg/mL. The immunohistochemical section was developed using SABC method .

Anti-FCRN/FCGRT Picoband Antibody - 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.