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anti-FcRn antibody



15

Publications



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Quantity:	100 μg
Target:	FcRn
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This FcRn antibody is un-conjugated
Application:	ELISA, Immunofluorescence (IF), Flow Cytometry (FACS), Functional Studies (Func), Cell-ELISA (cELISA)

Product Details

Immunogen:	Antibodies were generated by immunizing mouse FcRn-deficient mice with spleen cells from mice transgenic for human FcRn.
Clone:	ADM31
Isotype:	lgG2b
Characteristics:	based on recognition of the complete native protein expressed on transfected mammalian cells
Purification:	Purified, Protein A

Target Details

Target:	FcRn
Abstract:	FcRn Products

Target Details

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The MHC class I-like Fc receptor (FcRn) is an intracellular trafficking Fc receptor that is uniquely responsible for the extended serum half-life of antibodies of the IgG subclass and their ability to transport across cellular barriers. By performing these functions, FcRn affects numerous facets of antibody biology and pathobiology. Its critical role in controlling IgG pharmacokinetics has been leveraged for the design of therapeutic antibodies and related biologics. FcRn also traffics serum albumin and is responsible for the enhanced pharmacokinetic properties of albuminconjugated therapeutics.

Synonyms: IgG receptor FcRn large subunit p51, Neonatal Fc receptor, FCGRT

UniProt:

P55899

Pathways:

Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process

Application Details

Application Notes:

Flow cytometry: 1.2 μg/10⁶ cells

ELISA: 1:200 - 1:400CELISA: 1:200 - 1:400

For each application a titration should be performed to determine the optimal concentration.

Restrictions:

For Research Use only

Handling

Buffer:	phosphate buffered saline, pH 7.2
Handling Advice:	avoid repeated freezing and thawing
Storage:	4 °C

Publications

Product cited in:

Gjølberg, Frick, Mester, Foss, Grevys, Høydahl, Jørstad, Schlothauer, Sandlie, Moe, Andersen: "Biophysical differences in IgG1 Fc-based therapeutics relate to their cellular handling, interaction with FcRn and plasma half-life." in: **Communications biology**, Vol. 5, Issue 1, pp. 832, (2022) (PubMed).

Cines, Zaitsev, Rauova, Rux, Stepanova, Krishnaswamy, Sarkar, Kowalska, Zhao, Mast, Blumberg, McCrae, Poncz, Hubbard, Pyzik, Blumberg: "FcRn augments induction of tissue factor activity by IgG-containing immune complexes." in: **Blood**, Vol. 135, Issue 23, pp. 2085-2093, (2021) (PubMed).

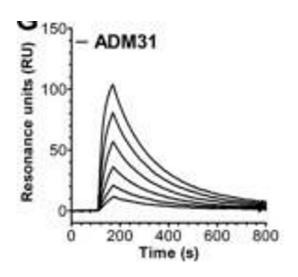
Hubbard, Pyzik, Rath, Kozicky, Sand, Gandhi, Grevys, Foss, Menzies, Glickman, Fiebiger, Roopenian, Sandlie, Andersen, Sly, Baker, Blumberg: "FcRn is a CD32a coreceptor that determines susceptibility to IgG immune complex-driven autoimmunity." in: **The Journal of experimental medicine**, Vol. 217, Issue 10, (2021) (PubMed).

Bern, Nilsen, Ferrarese, Sand, Gjølberg, Lode, Davidson, Camire, Bækkevold, Foss, Grevys, Dalhus, Wilson, Høydahl, Christianson, Roopenian, Schlothauer, Michaelsen, Moe, Lombardi, Pinotti, Sandlie et al.: "An engineered human albumin enhances half-life and transmucosal delivery when fused to protein-based biologics. ..." in: **Science translational medicine**, Vol. 12, Issue 565, (2021) (PubMed).

Casulleras, Flores-Costa, Duran-Güell, Alcaraz-Quiles, Sanz, Titos, López-Vicario, Fernández, Horrillo, Costa, de la Grange, Moreau, Arroyo, Clària: "Albumin internalizes and inhibits endosomal TLR signaling in leukocytes from patients with decompensated cirrhosis." in: **Science translational medicine**, Vol. 12, Issue 566, (2021) (PubMed).

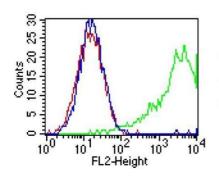
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Images



Surface Plasmon Resonance

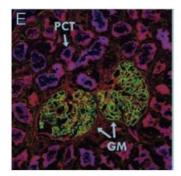
Image 1. Identification of monoclonal Abs that block albumin binding to hFcRn. Representative sensorgram showing binding of titrated amounts of monomeric hFcRn injected over immobilized ADM31 Source: PMID24764301



HEK293 cells
HEK293-human FcRn
HEK293-murine FcRn

Flow Cytometry

Image 2. HEK293 cells were stably transfected with an expression vector encoding either human FcRn (green curve) or murine FcRn (blue curve). Untransfected HEK293 cells were used as a negative control (red curve). Binding of ADM31 was detected with a PE conjugated secondary antibody. A positive signal was obtained only with human FcRn transfected cells



GM = Glomerolus

PCT= proximal convoluted tubule

Immunofluorescence

Image 3. Spectral Confocal Microscopy of hFcRn in human kidney tissue. Binding of ADM31 was visualized with Alexa Fluor 647 conjugated secondary antibody (red). The tissue was co-stained for proximal convoluted tubule (blue channel) and podocytes (green channel).

Please check the product details page for more images. Overall 6 images are available for ABIN1774762.