

Active Recombinant Mouse Fc Receptor, LgG, Alpha Chain Transporter, His-tagged

Cat. No. Fcgrt-491M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Fcgrtis expressed in Murine myeloma cell line, which has a molecule weight of 32.3kDa. Ser22 Val301, with a Cterminal 6His tag.
Species	Mouse
Source	Mammalian Cells
Description	Fc receptor (FCRN) is an approximately 45 kDa transmembrane glycoprotein with structural homology to MHC class I proteins. It is widely expressed in endothelial and epithelial cells and plays an important role in IgG homeostasis. It does not bind the structurally related chicken IgY. FCRN additionally binds to albumin, and both it and IgG are bound at pH 5.0 but not at pH 8.0. FCRN associates noncovalently with beta 2 Microglobulin, and this interaction is important for the intracellular trafficking of FCRN. FCRN cycles between the plasma membrane and acidified intracellular compartments of endothelial cells and epithelial cells. It binds endocytosed IgG and albumin in the low pH vesicles and transports them to the plasma membrane for extracellular release at higher Ph. FCRN is also expressed in neutrophils and myeloid antigen presenting cells. It can enhance IgG mediated phagocytosis and antigen presentation by these cells, but it promotes the degradation of opsonizing IgG rather than returning it to the circulation.
Form	Lyophilized from a 0.2µm filtered solution in PBS, NaCl and Triton.

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N-terminal Sequence	Ser22
Molecular Weight	32.3 kDa
Activity	Measured by its bindingability in a functional ELISA. When Recombinant Mouse FCRN is immobilized at 0.5µg/mL (100 µL/well), the concentration of human IgG that produces 50% of the optimalbinding response is found to be approximately 2 10 µg/mL.
Purity	>95%, by SDS-PAGEunder reducing conditions and visualized by silver stain.
Endotoxin Level	<1.0 EU per 1 µg of the proteinby the LAL method.
Reconstitution	Reconstitute at 250 µg/mL in PBS.
Storage	Use a manual defrostfreezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt,-20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution.3 months, -20 to -70 °C under sterile conditions after reconstitution.
OfficialSymbol	Fcgrt

GENE INFORMATION

Gene Name	Fcgrt Fc receptor, IgG, alpha chaintransporter [<i>Mus musculus</i>]
Synonyms	Fcgrt; Fc receptor, IgG,alpha chain transporter; FcRn; FCRN; IgG receptor FcRn large subunit p51; neonatalFc receptor; igG Fc fragment receptor transporter alpha chain; Fc fragment ofIgG, receptor, transporter, alpha; Neonatal Fc receptor; FcRn alpha chain; immunoglobulinreceptor, intestinal, heavy chain; major histocompatibility complex class I-likeFc receptor; neonatal Fc-receptor for Ig

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Gene ID 14132

mRNA Refseq NM_010189

Protein Refseq NP_034319

UniProt ID Q61559

Chromosome Location 7 B4; 7 23.0 cM

Function IgG binding; beta-2-microglobulinbinding; receptor activity

PDB rendering based on 1exu.

