

Recombinant LDLR/LDL Receptor Monoclonal Antibody

catalog number: **AN300505P**

Note: Centrifuge before opening to ensure complete recovery of vial contents.

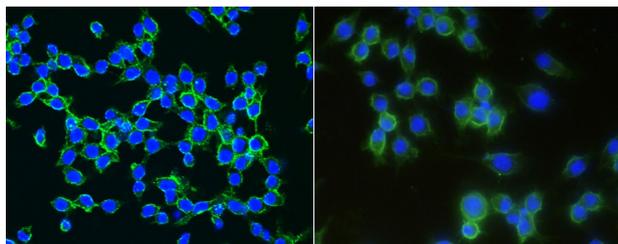
Description

Reactivity	Mouse
Immunogen	Recombinant Mouse LDLR protein
Host	Rabbit
Isotype	IgG
Clone	B435
Purification	Protein A
Buffer	0.2 µm filtered solution in PBS

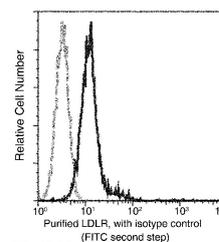
Applications Recommended Dilution

ICC/IF	1:50-1:1000
FCM	1:25-1:100

Data



Immunofluorescence analysis of Mouse LDLR in raw264.7 cells. Cells were fixed with 4% PFA, blocked with 10% serum, and incubated with Rabbit anti-Mouse LDLR monoclonal antibody (1:100) at 4°C overnight. Then cells were stained with the Alexa Fluor® 488-conjugated (left panel, captured by laser confocal scanning microscope; right panel, captured by fluorescence microscope) Goat Anti-rabbit IgG secondary antibody (green), counterstained with DAPI (blue). Positive staining was localized to plasma membrane.



Flow cytometric analysis of Mouse LDLR expression on Raw264.7. Cells were stained with purified anti-Mouse LDLR, then a FITC-conjugated second step antibody. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.

Preparation & Storage

Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Shipping	Ice bag

Background

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The low density lipoprotein receptor (LDL R) is the founding member of the LDL R family of scavenger receptors. This family contains type I transmembrane molecules that are characterized by the presence of EGF repeats, complement-like repeats, and YWTD motifs that form beta-propellers. Although members of the family were originally thought to be endocytic receptors, it is now clear that some members interact with adjacent cell-surface molecules, expanding their range of activities. Mouse LDL R is synthesized as a 864 amino acid (aa) precursor that contains a 21 aa signal sequence, a 769 aa extracellular region, a 22 aa transmembrane segment and a 52 aa cytoplasmic tail. The extracellular region is complex. It consists of seven N-terminal complement-like cysteine-rich repeats (class A LDL domains) that bind LDL. Cysteines in this region participate in intrachain disulfide bonds. This region is followed by two EGF-like domains and six class B LDL repeats that generate a beta-propeller whose blades each contain a YWTD motif. This area is likely responsible for ligand dissociation. Finally, there is a 50 aa membrane proximal Ser/Thr-rich region that shows extensive O-linked glycosylation, generating a native molecular weight for LDL R of 135 kDa. Within the 52 aa cytoplasmic region, there is an NPxY motif that links the receptor to clathrin pits and binds to select adaptor proteins. The extracellular region of mouse LDL R shares 78% and 87% aa identity with the extracellular region of human and rat LDL R, respectively. LDL R is constitutively expressed and binds apoB of LDL and apoE of VLDL. It is responsible for clearing 70% of plasma LDL in liver.

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