Mouse LDL R Biotinylated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: BAF2255

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse LDL R in Western blots. In Western blots, approximately 5% cross-reactivity with recombinant human LDL R is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse LDL R Ala22-Arg790 (Ala23Val, Cys27Gly) Accession # Q6GTJ9
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

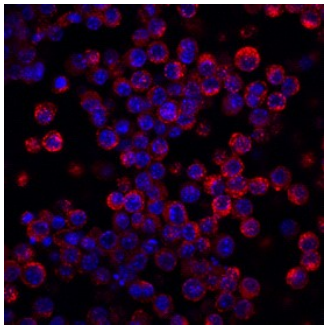
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse LDL R (Catalog # 2255-LD)
Flow Cytometry	2.5 µg/10^6 cells	See Below
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	Perfusion fixed frozen sections of mouse liver

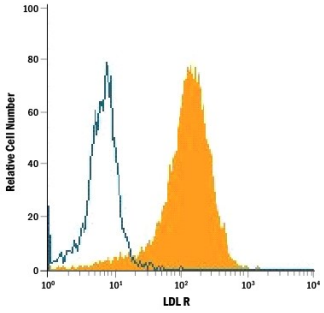
DATA

Immunocytochemistry



LDL R in RAW 264.7 Mouse Cell Line. LDL R was detected in immersion fixed RAW 264.7 mouse monocyte/macrophage cell line using Goat Anti-Mouse Anti-LDL R Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF2255) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Streptavidin (red; Catalog # NL999) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Flow Cytometry



Detection of LDL R in RAW 264.7 Mouse Cell Line by Flow Cytometry. Serum-deprived RAW 264.7 mouse monocyte/macrophage cell line was stained with Goat Anti-Mouse LDL R Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF2255, filled histogram) or isotype control antibody (Catalog # BAF108, open histogram), followed by Streptavidin-PE (Catalog # F0040).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer 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. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

The low density lipoprotein receptor (LDL R) is the founding member of the LDL R family of scavenger receptors (1, 2, 3, 4). This family contains type I transmembrane molecules that are characterized by the presence of EGF repeats, complement-like repeats, and YWTD motifs that form β-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 (2, 4). 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 (5). 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 β-propeller whose blades each contain a YWTD motif. This area is likely responsible for ligand dissociation (6). 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 (5). Within the 52 aa cytoplasmic region, there is an NPxY motif that links the receptor to clathrin pits and binds to select adaptor proteins (1, 7, 8). 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 (9). It is responsible for clearing 70% of plasma LDL in liver (9).

References:

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