

LDLR (C-20): sc-11824

BACKGROUND

LDLR (low density lipoprotein receptor) is a member of the LDL receptor gene family, which includes LDLR, LRP, megalin, VLDLR and apoER2. The LDL receptor family is characterized by a cluster of cysteine-rich class A repeats, epidermal growth factor (EGF)-like repeats, YWTD repeats and an O-linked sugar domain. The LDL receptor is a cell surface transmembrane protein that mediates the uptake of low density lipoprotein and its degradation in the lysosome, which provides cholesterol to cells. The cytoplasmic domain of the LDL receptor is necessary for the receptor to cluster in coated pits, which promotes the rapid endocytosis of bound LDL. Mutations in LDLR cause the autosomal dominant disease familial hypercholesterolemia (FH), which promotes premature coronary atherosclerosis.

CHROMOSOMAL LOCATION

Genetic locus: LDLR (human) mapping to 19p13.2; Ldlr (mouse) mapping to 9 A3.

SOURCE

LDLR (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of LDLR of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-11824 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LDLR (C-20) is recommended for detection of LDLR of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LDLR (C-20) is also recommended for detection of LDLR in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LDLR siRNA (h): sc-35802, LDLR siRNA (m): sc-35803, LDLR siRNA (r): sc-156112, LDLR shRNA Plasmid (h): sc-35802-SH, LDLR shRNA Plasmid (m): sc-35803-SH, LDLR shRNA Plasmid (r): sc-156112-SH, LDLR shRNA (h) Lentiviral Particles: sc-35802-V, LDLR shRNA (m) Lentiviral Particles: sc-35803-V and LDLR shRNA (r) Lentiviral Particles: sc-156112-V.

Molecular Weight of LDLR: 160 kDa.

Positive Controls: CCD-1064Sk cell lysate: sc-2263 or Raji whole cell lysate: sc-364236.

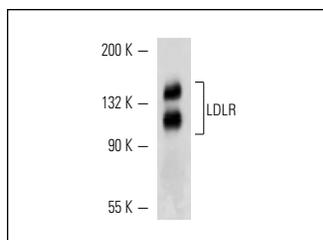
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



LDLR (C-20): sc-11824. Western blot analysis of purified human LDLR.

SELECT PRODUCT CITATIONS

1. Van Beeren, H.C., et al. 2003. Dronerone acts as a selective inhibitor of 3,5,3'-triiodothyronine binding to thyroid hormone receptor- α 1: *in vitro* and *in vivo* evidence. *Endocrinology* 144: 552-558.
2. Li, Y., et al. 2008. Molecular mechanism of age-specific hepatic lipid accumulation in PPAR α ^{+/-}:LDLR^{+/-} mice, an obese mouse model. *Lipids* 43: 301-312.
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4. Lu, K.Y., et al. 2010. Erythropoietin suppresses the formation of macrophage foam cells: role of liver X receptor α . *Circulation* 121: 1828-1837.
5. Tsai, J.Y., et al. 2010. Egb761 ameliorates the formation of foam cells by regulating the expression of SR-A and ABCA1: role of haem oxygenase-1. *Cardiovasc. Res.* 88: 415-423.
6. Cheng, L.C., et al. 2011. α -Lipoic acid ameliorates foam cell formation via liver X receptor α -dependent upregulation of ATP-binding cassette transporters A1 and G1. *Free Radic. Biol. Med.* 50: 47-54.
7. Mattos, K.A., et al. 2014. *Mycobacterium leprae* intracellular survival relies on cholesterol accumulation in infected macrophages: a potential target for new drugs for leprosy treatment. *Cell. Microbiol.* 16: 797-815.
8. Zhang, Y., et al. 2015. Dysregulation of low-density lipoprotein receptor contributes to podocyte injuries in diabetic nephropathy. *Am. J. Physiol. Endocrinol. Metab.* 308: E1140-E1148.


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