

# LDLR (H-120): sc-20744

## 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.

## REFERENCES

1. Davis, C.G., et al. 1986. The J.D. mutation in familial hypercholesterolemia: amino acid substitution in cytoplasmic domain impedes internalization of LDL receptors. *Cell* 45: 15-24.
2. Davis, C.G., et al. 1987. The low density lipoprotein receptor. Identification of amino acids in cytoplasmic domain required for rapid endocytosis. *J. Biol. Chem.* 262: 4075-4082.
3. Hobbs, H.H., et al. 1992. Molecular genetics of the LDL receptor gene in familial hypercholesterolemia. *Hum. Mutat.* 1: 445-466.
4. Fass, D., et al. 1997. Molecular basis of familial hypercholesterolemia from structure of LDL receptor module. *Nature* 388: 691-693.

## CHROMOSOMAL LOCATION

Genetic locus: LDLR (human) mapping to 19p13.2.

## SOURCE

LDLR (H-120) is a rabbit polyclonal antibody raised against amino acids 701-820 mapping near the C-terminus of LDLR of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

LDLR (H-120) is recommended for detection of LDLR of 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).

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

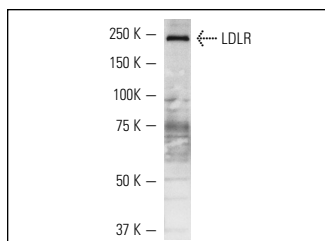
Molecular Weight of LDLR: 160 kDa.

Positive Controls: CCD-1064Sk cell lysate: sc-2263.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



LDLR (H-120): sc-20744. Western blot analysis of LDLR expression in CCD-1064Sk whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Shen, K.P., et al. 2009. Eugenosedin-A prevents hyperglycaemia, hyperlipidaemia and lipid peroxidation in C57BL/6J mice fed a high-fat diet. *J. Pharm. Pharmacol.* 61: 517-525.
2. Carrasco, M.P., et al. 2010. Disruption of cellular cholesterol transport and homeostasis as a novel mechanism of action of membrane-targeted alkylphospholipid analogues. *Br. J. Pharmacol.* 160: 355-366.
3. Subramaniam, D., et al. 2010. Cholesterol rich lipid raft microdomains are gateway for acute phase protein, SERPINA1. *Int. J. Biochem. Cell Biol.* 42: 1562-1570.

## 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.



Try **LDLR (C7): sc-18823** or **LDLR (F-7): sc-373830**, our highly recommended monoclonal alternatives to LDLR (H-120). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **LDLR (C7): sc-18823**.