SANTA CRUZ BIOTECHNOLOGY, INC.

LDLR (F-7): sc-373830

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

SOURCE

LDLR (F-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 13-47 near the N-terminus of LDLR of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

LDLR (F-7) is recommended for detection of LDLR of human origin by Western Blotting (starting dilution 1:100, 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, Raji whole cell lysate: sc-364236 or A-431 whole cell lysate: sc-2201.

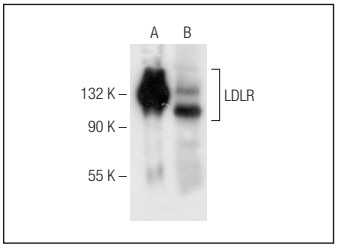
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

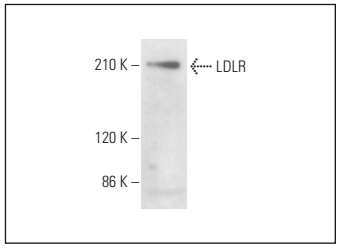
STORAGE

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

DATA



LDLR (F-7): sc-373830. Western blot analysis of human recombinant LDLR fusion protein (**A**) and LDLR expression in Raji whole cell lysate (**B**).



LDLR (F-7): sc-373830. Western blot analysis of LDLR expression in A-431 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Pewkliang, Y., et al. 2018. A novel immortalized hepatocyte-like cell line (imHC) supports *in vitro* liver stage development of the human malarial parasite *Plasmodium vivax*. Malar. J. 17: 50.
2. Sa-Ngiamsuntorn, K., et al. 2019. An immortalized hepatocyte-like cell line (imHC) accommodated complete viral lifecycle, viral persistence form, cccDNA and eventual spreading of a clinically-isolated HBV. Viruses 11: 952.
3. Fu, W., et al. 2019. 17β-estradiol inhibits PCSK9-mediated LDLR degradation through GPER/PLC activation in Hep G2 cells. Front. Endocrinol. 10: 930.
4. Chen, L., et al. 2020. Targeting lipid droplet lysophosphatidylcholine for cisplatin chemotherapy. J. Cell. Mol. Med. 24: 7187-7200.
5. Kongmanas, K., et al. 2020. Immortalized stem cell-derived hepatocyte-like cells: an alternative model for studying dengue pathogenesis and therapy. PLoS Negl. Trop. Dis. 14: e0008835.
6. Lee, G.E., et al. 2021. Role of proprotein convertase subtilisin/kexin type 9 in the pathogenesis of Graves' orbitopathy in orbital fibroblasts. Front. Endocrinol. 11: 607144.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CONJUGATES

See **LDLR (C7): sc-18823** for LDLR antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.