

# VLDLR (6A6): sc-18824

## BACKGROUND

VLDLR (very low density lipoprotein receptor) is a member of the LDL receptor gene family, which includes LDL receptor, 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. VLDLR is expressed in brain, heart, skeletal muscle and adipose tissue. It associates with RAP (receptor associated protein) during receptor folding, and RAP facilitates the secretion of the extracellular region of VLDLR. VLDLR is thought to mediate the interaction of extracellular Reelin and cytosolic mDab1 (mammalian disabled protein), which activates a tyrosine kinase. This pathway regulates the migration of neurons along the radial glial fiber network during brain development.

## CHROMOSOMAL LOCATION

Genetic locus: VLDLR (human) mapping to 9p24; Vldlr (mouse) mapping to 19 C1.

## SOURCE

VLDLR (6A6) is a mouse monoclonal antibody raised against a C-terminus 10 amino acid peptide corresponding to VLDL receptor of rat origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

VLDLR (6A6) is available conjugated to agarose (sc-18824 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-18824 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-18824 PE), fluorescein (sc-18824 FITC), Alexa Fluor® 488 (sc-18824 AF488), Alexa Fluor® 546 (sc-18824 AF546), Alexa Fluor® 594 (sc-18824 AF594) or Alexa Fluor® 647 (sc-18824 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-18824 AF680) or Alexa Fluor® 790 (sc-18824 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

VLDLR (6A6) is recommended for detection of VLDLR 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for VLDLR siRNA (h): sc-36822, VLDLR siRNA (m): sc-36823, VLDLR shRNA Plasmid (h): sc-36822-SH, VLDLR shRNA Plasmid (m): sc-36823-SH, VLDLR shRNA (h) Lentiviral Particles: sc-36822-V and VLDLR shRNA (m) Lentiviral Particles: sc-36823-V.

Molecular Weight of unglycosylated VLDLR: 143 kDa.

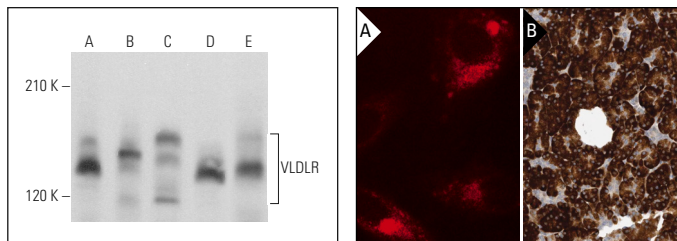
Molecular Weight of fully glycosylated VLDLR: 161 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, 3T3-L1 cell lysate: sc-2243 or rat heart extract: sc-2393.

## STORAGE

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

## DATA



VLDLR (6A6): sc-18824. Western blot analysis of VLDLR expression in NIH/3T3 (A), ARPE-19 (B), ACHN (C) and 3T3-L1 (D) whole cell lysates and rat heart tissue extract (E). Detection reagent used: m-IgG $\lambda$  BP-HRP (Cruz Marker): sc-516132-CM.

VLDLR (6A6): sc-18824. Immunofluorescence staining of methanol-fixed A-10 cells showing cytoplasmic staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular and islet cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

## SELECT PRODUCT CITATIONS

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- Shen, G.M., et al. 2012. Hypoxia-inducible factor-1 (HIF-1) promotes LDL and VLDL uptake through inducing VLDLR under hypoxia. *Biochem. J.* 441: 675-683.
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- Fang, X., et al. 2015. Activation of PPAR- $\delta$  induces microRNA-100 and decreases the uptake of very low-density lipoprotein in endothelial cells. *Br. J. Pharmacol.* 172: 3728-3736.
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- Romagnuolo, R., et al. 2017. Roles of the low density lipoprotein receptor and related receptors in inhibition of lipoprotein(a) internalization by proprotein convertase subtilisin/kexin type 9. *PLoS ONE* 12: e0180869.

## RESEARCH USE

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