

LRP1B (1642CT736.5.59): sc-517340

BACKGROUND

Members of the LDL receptor gene family, including LDLR (low density lipoprotein receptor), LRP5 (low density lipoprotein related proteins), megalin (also designated GP330), VLDLR (very low density lipoprotein receptor) and ApoER2, mediate the endocytosis of extracellular ligands. LRP1B is a member of the LRP subfamily that regulates the endocytic trafficking of the transmembrane protein β -Amyloid precursor protein (APP). Proteolytic processing of APP produces Amyloid- β peptide (A β), a molecule that is involved in the pathogenesis of Alzheimer's disease. LRP1B also regulates the catabolism of the platelet derived growth factor (PDGF) β -receptor, influencing the migration of smooth muscle cells, thereby implicating LRP1B in the development of atherosclerosis, a disease that affects the arterial blood vessel. LRP1B is also an important factor in the tumorigenesis of non-small cell lung cancer.

REFERENCES

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2. Cam, J.A., et al. 2004. The low density lipoprotein receptor-related protein 1B retains β -Amyloid precursor protein at the cell surface and reduces Amyloid- β peptide production. *J. Biol. Chem.* 279: 29639-29646.
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4. Sonoda, I., et al. 2004. Frequent silencing of low density lipoprotein receptor-related protein 1B (LRP1B) expression by genetic and epigenetic mechanisms in esophageal squamous cell carcinoma. *Cancer Res.* 64: 3741-3747.
5. Tanaga, K., et al. 2004. LRP1B attenuates the migration of smooth muscle cells by reducing membrane localization of urokinase and PDGF receptors. *Arterioscler. Thromb. Vasc. Biol.* 24: 1422-1428.
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7. Niemeier, A., et al. 2005. Expression of LRP1 by human osteoblasts: a mechanism for the delivery of lipoproteins and vitamin K1 to bone. *J. Bone Miner. Res.* 20: 283-293.
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CHROMOSOMAL LOCATION

Genetic locus: LRP1B (human) mapping to 2q22.1.

SOURCE

LRP1B (1642CT736.5.59) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 2620-2891 of LRP1B of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

LRP1B (1642CT736.5.59) is recommended for detection of LRP1B of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LRP1B siRNA (h): sc-60968, LRP1B shRNA Plasmid (h): sc-60968-SH and LRP1B shRNA (h) Lentiviral Particles: sc-60968-V.

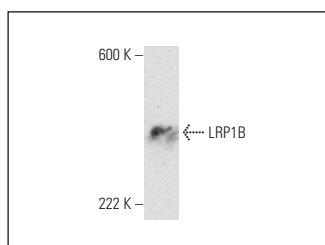
Molecular Weight of LRP1B: 600 kDa.

Positive Controls: human thyroid extract: sc-363782.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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).

DATA



LRP1B (1642CT736.5.59): sc-517340. Western blot analysis of LRP1B expression in human thyroid tissue extract.

STORAGE

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

PROTOCOLS

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