

LRP3 (D-8): sc-373736

BACKGROUND

Members of the LDL receptor gene family, including LDLR (low density lipoprotein receptor), LRP1 (low density lipoprotein related protein), Megalin (also designated GP330), VLDLR (very low density lipoprotein receptor) and ApoER2 are characterized by a cluster of cysteine-rich class A repeats, epidermal growth factor (EGF)-like repeats, YWTD repeats and an O-linked sugar domain. Low-density lipoprotein receptor-related protein 3 (LRP3) is a 770 amino acid protein that contains two CUB domains and four LDL-receptor class A domains. LRP3 is widely expressed with highest expression in skeletal muscle and ovary and lowest expression in testis, colon and leukocytes. LRP3 is potentially a membrane receptor involved in the internalization of lipophilic molecules and/or signal transduction.

REFERENCES

1. Ishii, H., et al. 1998. cDNA cloning of a new low-density lipoprotein receptor-related protein and mapping of its gene (LRP3) to chromosome bands 19q12-q13. *Genomics* 51: 132-135.
2. Croy, J.E., et al. 2003. All three LDL receptor homology regions of the LDL receptor-related protein bind multiple ligands. *Biochemistry* 42: 13049-13057.
3. Gonias, S.L., et al. 2004. Low density lipoprotein receptor-related protein: regulation of the plasma membrane proteome. *Thromb. Haemost.* 91: 1056-1064.
4. May, P., et al. 2005. Molecular mechanisms of lipoprotein receptor signalling. *Cell. Mol. Life Sci.* 62: 2325-2338.

CHROMOSOMAL LOCATION

Genetic locus: LRP3 (human) mapping to 19q13.11; Lrp3 (mouse) mapping to 7 B1.

SOURCE

LRP3 (D-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 303-333 within an extracellular domain of LRP3 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LRP3 (D-8) is available conjugated to agarose (sc-373736 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373736 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373736 PE), fluorescein (sc-373736 FITC), Alexa Fluor® 488 (sc-373736 AF488), Alexa Fluor® 546 (sc-373736 AF546), Alexa Fluor® 594 (sc-373736 AF594) or Alexa Fluor® 647 (sc-373736 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373736 AF680) or Alexa Fluor® 790 (sc-373736 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-373736 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

LRP3 (D-8) is recommended for detection of All LRP3 isoforms 1-3 of mouse, rat and 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

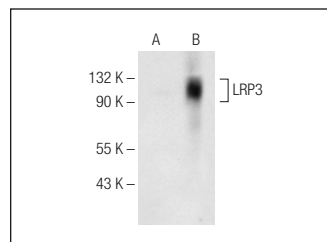
LRP3 (D-8) is also recommended for detection of All LRP3 isoforms 1-3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LRP3 siRNA (h): sc-97441, LRP3 siRNA (m): sc-149048, LRP3 shRNA Plasmid (h): sc-97441-SH, LRP3 shRNA Plasmid (m): sc-149048-SH, LRP3 shRNA (h) Lentiviral Particles: sc-97441-V and LRP3 shRNA (m) Lentiviral Particles: sc-149048-V.

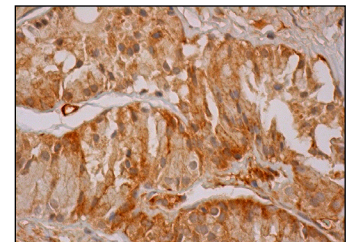
Molecular Weight of LRP3: 83 kDa.

Positive Controls: LRP3 (h): 293T Lysate: sc-173161.

DATA



LRP3 (D-8): sc-373736. Western blot analysis of LRP3 expression in non-transfected: sc-117752 (A) and human LRP3 transfected: sc-173161 (B) 293T whole cell lysates.



LRP3 (D-8): sc-373736. Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Cao, C., et al. 2022. Cholesterol-induced LRP3 downregulation promotes cartilage degeneration in osteoarthritis by targeting Syndecan-4. *Nat. Commun.* 13: 7139.

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.

PROTOCOLS

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