SANTA CRUZ BIOTECHNOLOGY, INC.

LRP11 (D-1): sc-514698

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. LRP11 (low density lipoprotein receptor-related protein 11), also known as MANSC3, is a 500 amino acid single-pass type I membrane protein that exists as two alternatively spliced isoforms. LRP11 is encoded by a gene located on human chromosome 6q25.1. Chromosome 6 contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

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. 2. 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: LRP11 (human) mapping to 6q25.1; Lrp11 (mouse) mapping to 10 A1.

SOURCE

LRP11 (D-1) is a mouse monoclonal antibody raised against amino acids 29-81 mapping within an N-terminal extracellular domain of LRP11 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LRP11 (D-1) is available conjugated to agarose (sc-514698 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514698 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514698 PE), fluorescein (sc-514698 FITC), Alexa Fluor® 488 (sc-514698 AF488), Alexa Fluor® 546 (sc-514698 AF546), Alexa Fluor® 594 (sc-514698 AF594) or Alexa Fluor® 647 (sc-514698 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514698 AF680) or Alexa Fluor® 790 (sc-514698 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

LRP11 (D-1) is recommended for detection of LRP11 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LRP11 siRNA (h): sc-95503, LRP11 siRNA (m): sc-149044, LRP11 shRNA Plasmid (h): sc-95503-SH, LRP11 shRNA Plasmid (m): sc-149044-SH, LRP11 shRNA (h) Lentiviral Particles: sc-95503-V and LRP11 shRNA (m) Lentiviral Particles: sc-149044-V.

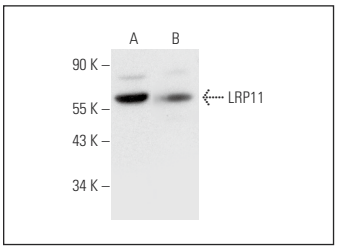
Molecular Weight of LRP11 isoforms: 53/25 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or human brain extract: sc-364375.

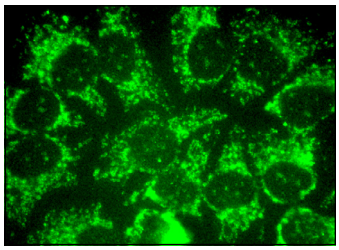
RECOMMENDED SUPPORT REAGENTS

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.

DATA



LRP11 (D-1): sc-514698. Western blot analysis of LRP11 expression in Hep G2 whole cell lysate (**A**) and human brain tissue extract (**B**).



LRP11 (D-1): sc-514698. Immunofluorescence staining of methanol-fixed HeLa cells showing mitochondrial localization.

SELECT PRODUCT CITATIONS

1. Gan, S., et al. 2020. LRP11 activates β-catenin to induce PD-L1 expression in prostate cancer. J. Drug Target. 28: 508-515.

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.