

# LRCH4 (A-9): sc-377441



The Power to Question

## BACKGROUND

Members of the leucine-rich repeat family include LRCH1, LRCH2, LRCH3 and LRCH4. All family members contain one calponin-homology domain and nine leucine-rich repeats. LRCH4 (leucine-rich repeats and calponin homology (CH) domain containing 4), also known as LRN, LRRN1, LRRN4 or SAP25, is a 683 amino acid protein that belongs to the leucine-rich repeat family. The carboxy-terminus of LRCH4 may act as a membrane anchor between cells, while the amino-terminus contains the leucine-rich domains, which is thought to be involved in ligand binding. The calponin homology (CH) domain is suggested to confer actin binding to a variety of cytoskeletal and signaling molecules. The gene encoding LRCH4 maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome.

## REFERENCES

1. Taguchi, A., et al. 1996. Molecular cloning of novel leucine-rich repeat proteins and their expression in the developing mouse nervous system. *Brain Res. Mol. Brain Res.* 35: 31-40.
2. Bañuelos, S., et al. 1998. Structural comparisons of calponin homology domains: implications for Actin binding. *Structure* 6: 1419-1431.
3. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. *Proc. Natl. Acad. Sci. USA* 95: 3781-3785.
4. Gimona, M., et al. 2002. Functional plasticity of CH domains. *FEBS Lett.* 513: 98-106.
5. Hillier, L.W., et al. 2003. The DNA sequence of human chromosome 7. *Nature* 424: 157-164.

## CHROMOSOMAL LOCATION

Genetic locus: LRCH4 (human) mapping to 7q22.1; Lrch4 (mouse) mapping to 5 G2.

## SOURCE

LRCH4 (A-9) is a mouse monoclonal antibody raised against amino acids 314-508 mapping within an internal region of LRCH4 of mouse origin.

## PRODUCT

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

LRCH4 (A-9) is available conjugated to agarose (sc-377441 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377441 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377441 PE), fluorescein (sc-377441 FITC), Alexa Fluor® 488 (sc-377441 AF488), Alexa Fluor® 546 (sc-377441 AF546), Alexa Fluor® 594 (sc-377441 AF594) or Alexa Fluor® 647 (sc-377441 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377441 AF680) or Alexa Fluor® 790 (sc-377441 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## RESEARCH USE

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

## APPLICATIONS

LRCH4 (A-9) is recommended for detection of LRCH4 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).

Suitable for use as control antibody for LRCH4 siRNA (h): sc-72376, LRCH4 siRNA (m): sc-72377, LRCH4 shRNA Plasmid (h): sc-72376-SH, LRCH4 shRNA Plasmid (m): sc-72377-SH, LRCH4 shRNA (h) Lentiviral Particles: sc-72376-V and LRCH4 shRNA (m) Lentiviral Particles: sc-72377-V.

Molecular Weight (predicted) of LRCH4: 73 kDa.

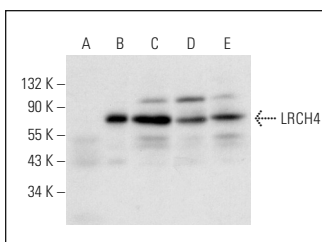
Molecular Weight (observed) of LRCH4: 83 kDa.

Positive Controls: LRCH4 (h): 293 Lysate: sc-113267, SH-SY5Y cell lysate: sc-3812 or IMR-32 cell lysate: sc-2409.

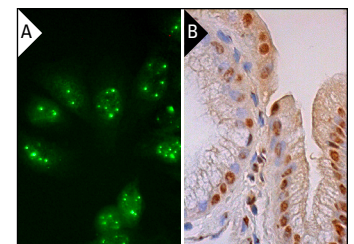
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



LRCH4 (A-9): sc-377441. Western blot analysis of LRCH4 expression in non-transfected 293: sc-110760 (A), human LRCH4 transfected 293: sc-113267 (B), SH-SY5Y (C), IMR-32 (D) and HeLa (E) whole cell lysates.



LRCH4 (A-9): sc-377441. Immunofluorescence staining of formalin-fixed SW480 cells showing PML bodies localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing nuclear staining of glandular cells (B).

## STORAGE

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

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