

LRCH4 (h): 293 Lysate: sc-113267

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.
6. Spector, T.D., et al. 2006. Association between a variation in LRCH1 and knee osteoarthritis: a genome-wide single-nucleotide polymorphism association study using DNA pooling. *Arthritis Rheum.* 54: 524-532.
7. Sjöblom, B., et al. 2008. Novel structural insights into F-Actin-binding and novel functions of calponin homology domains. *Curr. Opin. Struct. Biol.* 18: 702-708.
8. Jiang, Q., et al. 2008. Lack of association of single nucleotide polymorphism in LRCH1 with knee osteoarthritis susceptibility. *J. Hum. Genet.* 53: 42-47.
9. SWISS-PROT/TrEMBL (O75427). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: LRCH4 (human) mapping to 7q22.1.

PRODUCT

LRCH4 (h): 293 Lysate represents a lysate of human LRCH4 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

LRCH4 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive LRCH4 antibodies. Recommended use: 10-20 µl per lane.

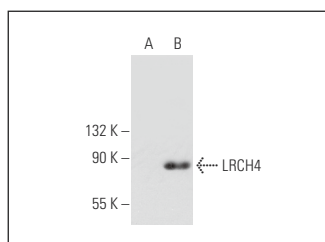
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

LRCH4 (F-12): sc-515531 is recommended as a positive control antibody for Western Blot analysis of enhanced human LRCH4 expression in LRCH4 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

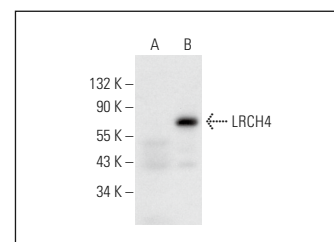
RECOMMENDED SUPPORT REAGENTS

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.

DATA



LRCH4 (F-12): sc-515531. Western blot analysis of LRCH4 expression in non-transfected: sc-110760 (A) and human LRCH4 transfected: sc-113267 (B) 293 whole cell lysates.



LRCH4 (A-9): sc-377441. Western blot analysis of LRCH4 expression in non-transfected: sc-110760 (A) and human LRCH4 transfected: sc-113267 (B) 293 whole cell lysates.

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.