

LRCH4 (m): 293T Lysate: sc-121392

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., Wanaka, A., Mori, T., Matsumoto, K., Imai, Y., Tagaki, T. and Tohyama, M. 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., Saraste, M. and Djinnovic Carugo, K. 1998. Structural comparisons of calponin homology domains: implications for Actin binding. *Structure* 6: 1419-1431.
3. Liang, H., Fairman, J., Claxton, D.F., Nowell, P.C., Green, E.D. and Nagarajan, L. 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., Djinnovic-Carugo, K., Kranewitter, W.J. and Winder, S.J. 2002. Functional plasticity of CH domains. *FEBS Lett.* 513: 98-106.
5. Hillier, L.W., Fulton, R.S., Fulton, L.A., Graves, T.A., Pepin, K.H., Wagner-McPherson, C., Layman, D., Maas, J., Jaeger, S., Walker, R., Wylie, K., Sekhon, M., Becker, M.C., O'Laughlin, M.D., Schaller, M.E., Fewell, G.A., Delehaunty, K.D., Miner, T.L., Nash, W.E., Cordes, M., et al. 2003. The DNA sequence of human chromosome 7. *Nature* 424: 157-164.
6. Spector, T.D., Reneland, R.H., Mah, S., Valdes, A.M., Hart, D.J., Kammerer, S., Langdown, M., Hoyal, C.R., Atienza, J., Doherty, M., Rahman, P., Nelson, M.R. and Braun, A. 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., Ylänne, J. and Djinnovic-Carugo, K. 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., Shi, D., Nakajima, M., Dai, J., Wei, J., Malizos, K.N., Qin, J., Miyamoto, Y., Kamatani, N., Liu, B., Tsezou, A., Nakamura, T. and Ikegawa, S. 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* (mouse) mapping to 5 G2.

PRODUCT

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

APPLICATIONS

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

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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.

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.