LRCH2 (P-18): sc-247821



The Power to Question

BACKGROUND

LRCH2 (leucine-rich repeat and calponin homology domain-containing protein 2) is a 765 amino acid protein that contains 9 LRR (leucine-rich) repeats and one CH (calponin-homology) domain. LRCH2 is a member of the leucine-rich repeat and calponin homology domain-containing protein family. Members of this family contain multiple N-terminal leucine-rich repeats in addition to a C-terminal calponin homology domain, a type of domain that mediates interactions with actin filaments. The gene that encodes LRCH2 is made up of approximately 123,457 bases and maps to human chromosome Xq23. Human chromosome X consists of about 153 million base pairs and nearly 1,000 genes. Color blindness, hemophilia and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently, as males carry a single X chromosome.

REFERENCES

- Bernardino-Sgherri, J., Flagiello, D. and Dutrillaux, B. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. Cytogenet. Genome Res. 99: 85-91.
- Deeb, S.S. 2005. The molecular basis of variation in human color vision. Clin. Genet. 67: 369-377.
- Bojesen, A., Kristensen, K., Birkebaek, N.H., Fedder, J., Mosekilde, L., Bennett, P., Laurberg, P., Frystyk, J., Flyvbjerg, A., Christiansen, J.S. and Gravholt, C.H. 2006. The metabolic syndrome is frequent in Klinefelter's syndrome and is associated with abdominal obesity and hypogonadism. Diabetes Care 29: 1591-1598.
- Maggio, M.C., Liotta, A., De Grazia, E., Cimador, M., Di Pace, R. and Corsello, G. 2007. Polycystic ovary and gonadoblastoma in Turner's syndrome. Minerva Pediatr. 59: 397-401.
- Helderman-van den Enden, A.T., de Jong, R., den Dunnen, J.T., Houwing-Duistermaat, J.J., Kneppers, A.L., Ginjaar, H.B., Breuning, M.H. and Bakker, E. 2009. Recurrence risk due to germ line mosaicism: Duchenne and Becker muscular dystrophy. Clin. Genet. 75: 465-472.
- 6. Kasper, C.K. and Buzin, C.H. 2009. Mosaicism and haemophilia. Haemophilia. E-Published.
- Foussard, H., Ferrer, P., Valenti, P., Polesello, C., Carreno, S. and Payre, F. 2010. LRCH proteins: a novel family of cytoskeletal regulators. PLoS ONE 5: e12257.
- 8. Ng, A. and Xavier, R.J. 2011. Leucine-rich repeat (LRR) proteins: integrators of pattern recognition and signaling in immunity. Autophagy 7: 1082-1084.
- 9. Ng, A.C., Eisenberg, J.M., Heath, R.J., Huett, A., Robinson, C.M., Nau, G.J. and Xavier, R.J. 2011. Human leucine-rich repeat proteins: a genome-wide bioinformatic categorization and functional analysis in innate immunity. Proc. Natl. Acad. Sci. USA 108: 4631-4638.

CHROMOSOMAL LOCATION

Genetic locus: LRCH2 (human) mapping to Xq23; Lrch2 (mouse) mapping to X F2.

SOURCE

LRCH2 (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LRCH2 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-247821 P, ($100 \mu g$ peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LRCH2 (P-18) is recommended for detection of LRCH2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with LRCH1, LRCH3 or LRCH4.

LRCH2 (P-18) is also recommended for detection of LRCH2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for LRCH2 siRNA (h): sc-90990, LRCH2 siRNA (m): sc-149031, LRCH2 shRNA Plasmid (h): sc-90990-SH, LRCH2 shRNA Plasmid (m): sc-149031-SH, LRCH2 shRNA (h) Lentiviral Particles: sc-90990-V and LRCH2 shRNA (m) Lentiviral Particles: sc-149031-V.

Molecular Weight of LRCH2: 85 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**