

LRRC54 (C-18): sc-79976

BACKGROUND

The leucine-rich (LRR) repeat is a 20-30 amino acid motif that forms a hydrophobic α/β horseshoe fold, allowing it to accommodate several leucine residues within a tightly packed core. All LRR repeats contain a variable segment and a highly conserved segment, the latter of which accounts for 11 or 12 residues of the entire LRR motif. LRRC54 (leucine-rich repeat-containing protein 54), also known as tsukushin, TSKU or E2-induced gene four protein (E2IG4), is a 353 amino acid secreted protein that likely localizes to the cell membrane and extracellular compartments. Involved in extracellular secretion and intracellular transport, LRRC54 can be induced by 17- β -estradiol. Containing nine LRR repeat and a cleavable signal peptide, the gene encoding LRRC54 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

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2. Charpentier, A.H., et al. 2000. Effects of estrogen on global gene expression: identification of novel targets of estrogen action. *Cancer Res.* 60: 5977-5983.
3. Jira, P.E., et al. 2003. Smith-Lemli-Opitz syndrome and the DHCR7 gene. *Ann. Hum. Genet.* 67 269-280.
4. Clark, H.F., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. *Genome Res.* 13: 2265-2270.
5. Ohta, K., et al. 2004. Tsukushi functions as an organizer inducer by inhibition of BMP activity in cooperation with chordin. *Dev. Cell* 7: 347-358.
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CHROMOSOMAL LOCATION

Genetic locus: TSKU (human) mapping to 11q13.5; Tsku (mouse) mapping to 7 E2.

SOURCE

LRRC54 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of LRRC54 of human origin.

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.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79976 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LRRC54 (C-18) is recommended for detection of LRRC54 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

LRRC54 (C-18) is also recommended for detection of LRRC54 in additional species, including equine and porcine.

Suitable for use as control antibody for LRRC54 siRNA (h): sc-75698, LRRC54 siRNA (m): sc-75699, LRRC54 shRNA Plasmid (h): sc-75698-SH, LRRC54 shRNA Plasmid (m): sc-75699-SH, LRRC54 shRNA (h) Lentiviral Particles: sc-75698-V and LRRC54 shRNA (m) Lentiviral Particles: sc-75699-V.

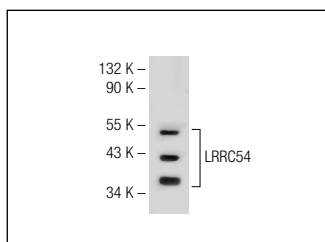
Molecular Weight of LRRC54: 38 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



LRRC54 (C-18): sc-79976. Western blot analysis of LRRC54 expression in HeLa whole cell lysate.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.