SANTA CRUZ BIOTECHNOLOGY, INC.

LRRC18 (D-2): sc-393659

BACKGROUND

The leucine-rich repeat (LRR) 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 LRRs contain a variable segment and a highly conserved segment, the latter of which accounts for 11 or 12 residues of the entire LRR motif. The primary function of these motifs is to provide a versatile structural framework to mediate the formation of protein-protein interactions. LRRs are present in a variety of proteins with diverse structure and function, including innate immunity and nervous system development. LRRC18 (leucine-rich repeat-containing protein 18), also known as UNQ933, MGC34773 or VKGE9338, is a 261 amino acid protein that contains seven LRRs. Localized to the cytoplasm, LRRC18 may be involved in spermatogenesis and sperm maturation. LRRC18 is expressed as two isoforms produced by alternative splicing and is encoded by a gene mapping to human chromosome 10.

REFERENCES

1. Kobe, B. and Kajava, A.V. 2001. The leucine-rich repeat as a protein recognition motif. Curr. Opin. Struct. Biol. 11: 725-732.
2. 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.
3. Nie, D.S., et al. 2005. Identification of a novel testis-specific gene mtLR1, which is expressed at specific stages of mouse spermatogenesis. Biochem. Biophys. Res. Commun. 328: 1010-1018.
4. Matsushima, N., et al. 2005. Structural analysis of leucine-rich-repeat variants in proteins associated with human diseases. Cell. Mol. Life Sci. 62: 2771-2791.
5. O'Donnell, C.J., et al. 2007. Genome-wide association study for subclinical atherosclerosis in major arterial territories in the NHLBI's Framingham Heart Study. BMC Med. Genet. 8: S4.

CHROMOSOMAL LOCATION

Genetic locus: LRRC18 (human) mapping to 10q11.23.

SOURCE

LRRC18 (D-2) is a mouse monoclonal antibody raised against amino acids 1-261 representing full length LRRC18 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LRRC18 (D-2) is available conjugated to agarose (sc-393659 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393659 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393659 PE), fluorescein (sc-393659 FITC), Alexa Fluor® 488 (sc-393659 AF488), Alexa Fluor® 546 (sc-393659 AF546), Alexa Fluor® 594 (sc-393659 AF594) or Alexa Fluor® 647 (sc-393659 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393659 AF680) or Alexa Fluor® 790 (sc-393659 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

LRRC18 (D-2) is recommended for detection of LRRC18 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LRRC18 siRNA (h): sc-90424, LRRC18 shRNA Plasmid (h): sc-90424-SH and LRRC18 shRNA (h) Lentiviral Particles: sc-90424-V.

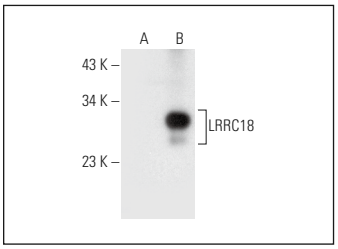
Molecular Weight of LRRC18: 30 kDa.

Positive Controls: LRRC18 (h): 293T Lysate: sc-114161.

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.

DATA



LRRC18 (D-2): sc-393659. Western blot analysis of LRRC18 expression in non-transfected: sc-117752 (**A**) and human LRRC18 transfected: sc-114161 (**B**) 293T whole cell lysates.

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 for detailed protocols and support products.