SANTA CRUZ BIOTECHNOLOGY, INC.

LRRC43 (D-14): sc-138403

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. 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. Several human diseases are associated with mutations in genes encoding LRR-containing proteins. LRRC43 (leucine rich repeat containing 43) is a 656 amino acid protein containing 4 LRR (leucine-rich) repeats and one LRRCT domain. LRRC43 exists as three alternatively spliced isoforms and is encoded by a gene located on human chromosome 12q24.31.

REFERENCES

1. Gomi, F., et al. 2000. Molecular cloning of a novel membrane glycoprotein, pal, specifically expressed in photoreceptor cells of the retina and containing leucine-rich repeat. J. Neurosci. 20: 3206-3213.
2. Kobe, B. and Kajava, A.V. 2001. The leucine-rich repeat as a protein recognition motif. Curr. Opin. Struct. Biol. 11: 725-732.
3. Hofman, P., et al. 2001. Lack of blood-brain barrier properties in microvessels of the prelaminar optic nerve head. Invest. Ophthalmol. Vis. Sci. 42: 895-901.
4. Hughes, J.M., et al. 2004. Vascular leucocyte adhesion molecules unaltered in the human retina in diabetes. Br. J. Ophthalmol. 88: 566-572.
5. Kuiper, E.J., et al. 2004. Differential expression of connective tissue growth factor in microglia and pericytes in the human diabetic retina. Br. J. Ophthalmol. 88: 1082-1087.
6. 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.

CHROMOSOMAL LOCATION

Genetic locus: LRRC43 (human) mapping to 12q24.31; Lrrc43 (mouse) mapping to 5 F.

SOURCE

LRRC43 (D-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of LRRC43 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138403 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

LRRC43 (D-14) is recommended for detection of LRRC43 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other LRRC family members.

LRRC43 (D-14) is also recommended for detection of LRRC43 in additional species, including equine.

Suitable for use as control antibody for LRRC43 siRNA (h): sc-95798, LRRC43 siRNA (m): sc-149082, LRRC43 shRNA Plasmid (h): sc-95798-SH, LRRC43 shRNA Plasmid (m): sc-149082-SH, LRRC43 shRNA (h) Lentiviral Particles: sc-95798-V and LRRC43 shRNA (m) Lentiviral Particles: sc-149082-V.

Molecular Weight of LRRC43 isoforms: 73/52/58 kDa.

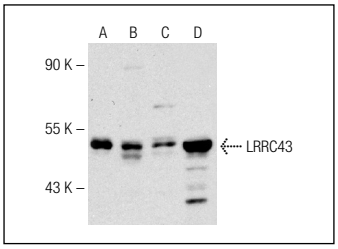
Molecular Weight (observed) of LRRC43: 50 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, Caki-1 cell lysate: sc-2224 or mouse kidney extract: sc-2255.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



LRRC43 (D-14): sc-138403. Western blot analysis of LRRC43 expression in A-431 (**A**), NRK (**B**) and Caki-1 (**C**) whole cell lysates and mouse kidney tissue extract (**D**).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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