

LRRC1 (T-14): sc-243330

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. LRRC1 (leucine-rich repeat-containing protein 1), also known as LANO adapter protein or LAP and no PDZ protein, is a 524 amino acid protein that contains 17 LRR repeats. Localized to the cytoplasm and the membrane, LRRC1 is expressed strongly in placenta and testis, with lower levels found in heart, kidney, thyroid, lung, prostate, colon and trachea. LRRC1 interacts with PSD-95 and SAP 97, and may form a complex with SAP 97 and ERBIN. LRRC1 is expressed as two isoforms produced by alternative splicing events.

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. Saito, H., et al. 2001. Lano, a novel LAP protein directly connected to MAGUK proteins in epithelial cells. *J. Biol. Chem.* 276: 32051-32055.
3. Suzuki, T., et al. 2002. Identification and mutational analysis of candidate genes for juvenile myoclonic epilepsy on 6p11-p12: LRRC1, GCLC, KIAA0057 and CLIC5. *Epilepsy Res.* 50: 265-275.
4. Mungall, A.J., et al. 2003. The DNA sequence and analysis of human chromosome 6. *Nature* 425: 805-811.
5. 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.
6. Svendsen, J.M., et al. 2009. Mammalian BTBD12/SLX4 assembles a Holliday junction resolvase and is required for DNA repair. *Cell* 138: 63-77.

CHROMOSOMAL LOCATION

Genetic locus: LRRC1 (human) mapping to 6p12.1; *Lrrc1* (mouse) mapping to 9 D.

SOURCE

LRRC1 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LRRC1 of human origin.

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-243330 P, (100 μ g 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

LRRC1 (T-14) is recommended for detection of LRRC1 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), immunohistochemistry (including paraffin-embedded sections) (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 other LRRC family members.

LRRC1 (T-14) is also recommended for detection of LRRC1 in additional species, including equine and avian.

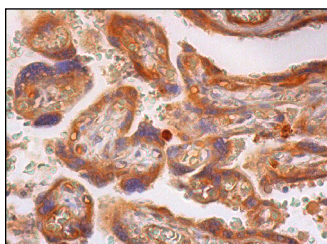
Suitable for use as control antibody for LRRC1 siRNA (h): sc-95388, LRRC1 siRNA (m): sc-149051, LRRC1 shRNA Plasmid (h): sc-95388-SH, LRRC1 shRNA Plasmid (m): sc-149051-SH, LRRC1 shRNA (h) Lentiviral Particles: sc-95388-V and LRRC1 shRNA (m) Lentiviral Particles: sc-149051-V.

Molecular Weight of LRRC1 isoforms: 60/23 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



LRRC1 (T-14): sc243330. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells.

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.