LRRC4 (H-68): sc-98630

SANTA CRUZ®
BIOTECHNOLOGY

The Power to Question

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. The leucine-rich repeat-containing protein 4 (LRRC4), also designated Brain tumor-associated protein BAG, Nasopharyngeal carcinoma-associated gene 14 protein (NAG14) or Netrin-G2 ligand (NGL-2), contains 1 Ig-like (immunoglobulin-like) domain and 9 LRR (leucine-rich) repeats. LRRC4 is specifically expressed in brain. Methylation of the LRRC4 gene occurs frequently in gliomas, making LRRC4 a biomarker for diagnosis or a potential therapeutic target.

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. 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.

3. Zhang, Q., et al. 2005. Expression and functional characterization of LRRC4, a novel brain-specific member of the LRR superfamily. FEBS Lett. 579: 3674-3682.

4. Wu, M., et al. 2006. LRRC4, a putative tumor suppressor gene, requires a functional leucine-rich repeat cassette domain to inhibit proliferation of glioma cells *in vitro* by modulating the extracellular signal-regulated kinase/protein kinase B/nuclear factor-κB pathway. Mol. Biol. Cell 17: 3534-3542.

CHROMOSOMAL LOCATION

Genetic locus: LRRC4 (human) mapping to 7q32.1; Lrrc4 (mouse) mapping to 6 A3.3.

SOURCE

LRRC4 (H-68) is a rabbit polyclonal antibody raised against amino acids 458-525 mapping within an internal region of LRRC4 of human origin.

PRODUCT

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

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.

APPLICATIONS

LRRC4 (H-68) is recommended for detection of LRRC4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

LRRC4 (H-68) is also recommended for detection of LRRC4 in additional species, including equine.

Suitable for use as control antibody for LRRC4 siRNA (h): sc-89808, LRRC4 siRNA (m): sc-106186, LRRC4 shRNA Plasmid (h): sc-89808-SH, LRRC4 shRNA Plasmid (m): sc-106186-SH, LRRC4 shRNA (h) Lentiviral Particles: sc-89808-V and LRRC4 shRNA (m) Lentiviral Particles: sc-106186-V.

Molecular Weight of LRRC4: 73 kDa.

Positive Controls: human brain hippocampus extract: sc-364375.

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
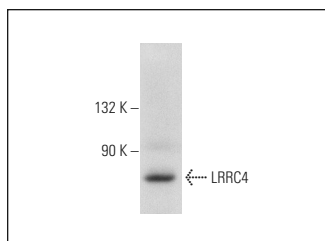
LRRC4 (H-68): sc-98630. Western blot analysis of LRRC4 expression in human brain hippocampus tissue extract.

SELECT PRODUCT CITATIONS

1. Xu, G., et al. 2015. NGL-2 is a new partner of PAR complex in Axon differentiation. J. Neurosci. 35: 7153-7164.

MONOS
Satisfation
Guaranteed

Try **LRRC4 (C-11): sc-376475**, our highly recommended monoclonal alternative to LRRC4 (H-68).