SANTA CRUZ BIOTECHNOLOGY, INC.

LRRN4CL (G-17): sc-243369

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Leucine-rich repeats (LRRs) are 20-30 amino acid motifs that mediate protein-protein interactions. The primary function of these motifs is to provide a versatile structural framework for the formation of these 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 the genes encoding LRR-containing proteins. LRRN4CL (leucine-rich repeat neuronal protein 4 C-terminal-like protein) is a 238 amino acid single-pass type I membrane protein that contains one fibronectin type-III domain. The gene encoding LRRN4CL 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

1. Taguchi, A., et al. 1996. Molecular cloning of novel leucine-rich repeat proteins and their expression in the developing mouse nervous system. Brain Res. Mol. Brain Res. 35: 31-40.
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. Hamano, S., et al. 2004. Identification of novel human neuronal leucine-rich repeat (hNLRR) family genes and inverse association of expression of Nbla10449/hNLRR-1 and Nbla10677/hNLRR-3 with the prognosis of primary neuroblastomas. Int. J. Oncol. 24: 1457-1466.
4. Haines, B.P., et al. 2005. The NLRR gene family and mouse development: modified differential display PCR identifies NLRR-1 as a gene expressed in early somitic myoblasts. Dev. Biol. 281: 145-159.
5. McEwan, P.A., et al. 2006. Structural correlations in the family of small leucine-rich repeat proteins and proteoglycans. J. Struct. Biol. 155: 294-305.
6. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. Nature 440: 497-500.

CHROMOSOMAL LOCATION

Genetic locus: LRRN4CL (human) mapping to 11q12.3.

SOURCE

LRRN4CL (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of LRRN4CL 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.

Blocking peptide available for competition studies, sc-243369 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LRRN4CL (G-17) is recommended for detection of LRRN4CL of 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); non cross-reactive with LRRN1, LRRN2 or LRRN3.

Suitable for use as control antibody for LRRN4CL siRNA (h): sc-96466, LRRN4CL shRNA Plasmid (h): sc-96466-SH and LRRN4CL shRNA (h) Lentiviral Particles: sc-96466-V.

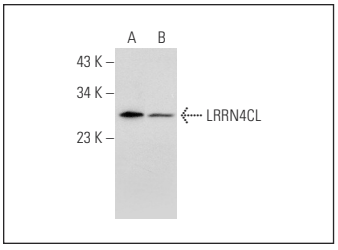
Molecular Weight of LRRN4CL: 25 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136 or U-698-M whole cell lysate: sc-364799.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



LRRN4CL (G-17): sc-243369. Western blot analysis of LRRN4CL expression in HEK293 (**A**) and U-698-M (**B**) 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 or our catalog for detailed protocols and support products.