SANTA CRUZ BIOTECHNOLOGY, INC.

LRRC3B (S-13): sc-99553

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Leucine-rich repeats (LRRs) are 20-29 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 mutation in the genes encoding LRR-containing proteins. The leucine-rich repeat-containing protein 3B (LRRC3B), also designated LRP15, is a 259 amino acid protein that contains three LRR repeats. The gene encoding LRRC3B is a tumor suppressor gene that is regulated by DNA methylation. Decreased expression of LRRC3B has been shown in colorectal cancer and gastric cancer, making LRRC3B a candidate marker for those cancers.

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. Xu, Z.M., et al. 2003. Cloning of the full length cDNA for a novel leukemia relapse-associated candidate gene LRP15. Zhongguo Shi Yan Xue Ye Xue Za Zhi 11: 22-26.
3. 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.
4. Chen, Y., et al. 2006. AMIGO and friends: an emerging family of brain-enriched, neuronal growth modulating, type I transmembrane proteins with leucine-rich repeats (LRR) and cell adhesion molecule motifs. Brain Res. Rev. 51: 265-274.
5. Dolan, J., et al. 2007. The extracellular leucine-rich repeat superfamily; a comparative survey and analysis of evolutionary relationships and expression patterns. BMC Genomics 8: 320.
6. Ko, J. and Kim, E. 2007. Leucine-rich repeat proteins of synapses. J. Neurosci. Res. 85: 2824-2832.

CHROMOSOMAL LOCATION

Genetic locus: LRRC3B (human) mapping to 3p24.1; Lrrc3b (mouse) mapping to 14 A2.

SOURCE

LRRC3B (S-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of LRRC3B of human origin.

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.

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-99553 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LRRC3B (S-13) is recommended for detection of LRRC3B of mouse 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); non cross-reactive with other LRRC family members.

Suitable for use as control antibody for LRRC3B siRNA (h): sc-78010, LRRC3B siRNA (m): sc-149078, LRRC3B shRNA Plasmid (h): sc-78010-SH, LRRC3B shRNA Plasmid (m): sc-149078-SH, LRRC3B shRNA (h) Lentiviral Particles: sc-78010-V and LRRC3B shRNA (m) Lentiviral Particles: sc-149078-V.

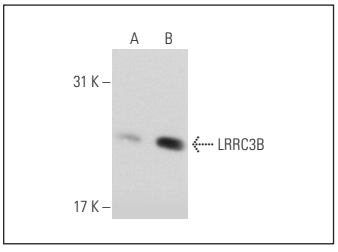
Molecular Weight of LRRC3B: 29 kDa.

Positive Controls: SW480 cell lysate: sc-2219 or LRRC3B (h9): 293 Lysate: sc-129054.

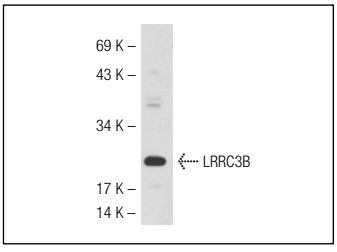
RECOMMENDED SECONDARY REAGENTS

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



LRRC3B (S-13): sc-99553. Western blot analysis of LRRC3B expression in non-transfected: sc-110760 (**A**) and human LRRC3B transfected: sc-129054 (**B**) 293 whole cell lysates.



LRRC3B (S-13): sc-99553. Western blot analysis of LRRC3B expression in SW480 whole cell lysate.

RESEARCH USE

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