SANTA CRUZ BIOTECHNOLOGY, INC.

LRFN2 (N-12): sc-137572

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The Power to Question

BACKGROUND

LRFN2 (leucine rich repeat and fibronectin type III domain containing 2), also known as synaptic adhesion-like molecule 1, SALM1 or fibronectin type III, immunoglobulin and leucine rich repeat domains 2, is a 789 amino acid single-pass type I membrane protein belonging to the LRFN family. Encoded by a gene that maps to human chromosome 6p21.2, LRFN2 is moderately expressed in brain, spleen and testis. LRFN2 contains one fibronectin type-III domain, one Ig-like (immunoglobulin-like) domain and six LRR (leucine-rich) repeats. LRFN2 promotes neurite outgrowth in hippocampal neurons, enhances cell surface expression of two NMDA receptor subunits, NMDAζ1 and NMDAε1, and may play a role in redistributing PSD-95 to cell periphery. LRFN2 forms heteromeric complexes with LRFN1, LRFN3, LRFN4 and LRFN5, and is capable of forming homomeric complexes, but not across cell junctions.

REFERENCES

1. Morimura, N., et al. 2006. Comparative analysis of structure, expression and PSD95-binding capacity of Lrfn, a novel family of neuronal transmembrane proteins. Gene 380: 72-83.
2. Wang, C.Y., et al. 2006. A novel family of adhesion-like molecules that interacts with the NMDA receptor. J. Neurosci. 26: 2174-2183.
3. Castellanos, A., et al. 2007. Regulation of erythropoiesis by the neuronal transmembrane protein Lrfn2. Exp. Hematol. 35: 724-734.
4. Ko, J., et al. 2007. Leucine-rich repeat proteins of synapses. J. Neurosci. Res. 85: 2824-2832.
5. Seabold, G.K., et al. 2008. The SALM family of adhesion-like molecules forms heteromeric and homomeric complexes. J. Biol. Chem. 283: 8395-8405.
6. Wang, P.Y., et al. 2008. Synaptic adhesion-like molecules (SALMs) promote neurite outgrowth. Mol. Cell. Neurosci. 39: 83-94.
7. Mah, W., et al. 2010. Selected SALM (synaptic adhesion-like molecule) family proteins regulate synapse formation. J. Neurosci. 30: 5559-5568.

CHROMOSOMAL LOCATION

Genetic locus: LRFN2 (human) mapping to 6p21.2; Lrfn2 (mouse) mapping to 17 C.

SOURCE

LRFN2 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of LRFN2 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 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-137572 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LRFN2 (N-12) is recommended for detection of LRFN2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other LRFN family members.

LRFN2 (N-12) is also recommended for detection of LRFN2 in additional species, including equine.

Suitable for use as control antibody for LRFN2 siRNA (h): sc-95053, LRFN2 siRNA (m): sc-149034, LRFN2 shRNA Plasmid (h): sc-95053-SH, LRFN2 shRNA Plasmid (m): sc-149034-SH, LRFN2 shRNA (h) Lentiviral Particles: sc-95053-V and LRFN2 shRNA (m) Lentiviral Particles: sc-149034-V.

Molecular Weight of LRFN2: 85 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.

RESEARCH USE

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