

LRFN3 (N-14): sc-241528

BACKGROUND

LRFN3 (leucine-rich repeat and fibronectin type-III domain-containing protein 3), also known as SALM4 (synaptic adhesion-like molecule 4), is a 628 amino acid single-pass type I membrane protein that belongs to the LRFN family. Containing seven LRR (leucine-rich) repeats, LRFN3 also contains one fibronectin type-III domain, one Ig-like (immunoglobulin-like) domain, one LRRCT domain and one LRRNT domain. As a cell adhesion molecule that mediates homophilic cell-cell adhesion in a Ca²⁺-independent manner, LRFN3 promotes neurite outgrowth in hippocampal neurons. LRFN3 forms homomeric complexes across cell junctions (between adjacent cells), and can form heteromeric complexes with LRFN1, LRFN2, LRFN4 and LRFN5. The gene that encodes LRFN3 consists of more than 8,000 bases and maps to human chromosome 19q13.12.

REFERENCES

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3. 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.
4. Wang, C.Y., et al. 2006. A novel family of adhesion-like molecules that interacts with the NMDA receptor. *J. Neurosci.* 26: 2174-2183.
5. Barrow, A.D., et al. 2008. The extended human leukocyte receptor complex: diverse ways of modulating immune responses. *Immunol. Rev.* 224: 98-123.
6. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 612809. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Konakahara, S., et al. 2011. A neuronal transmembrane protein LRFN4 induces monocyte/macrophage migration via actin cytoskeleton reorganization. *FEBS Lett.* 585: 2377-2384.

CHROMOSOMAL LOCATION

Genetic locus: LRFN3 (human) mapping to 19q13.12; Lrfn3 (mouse) mapping to 7 B1.

SOURCE

LRFN3 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of LRFN3 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-241528 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LRFN3 (N-14) is recommended for detection of LRFN3 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); non cross-reactive with other LRFN family members.

LRFN3 (N-14) is also recommended for detection of LRFN3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LRFN3 siRNA (h): sc-97163, LRFN3 siRNA (m): sc-149035, LRFN3 shRNA Plasmid (h): sc-97163-SH, LRFN3 shRNA Plasmid (m): sc-149035-SH, LRFN3 shRNA (h) Lentiviral Particles: sc-97163-V and LRFN3 shRNA (m) Lentiviral Particles: sc-149035-V.

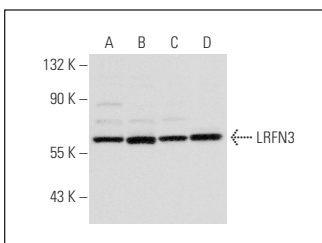
Molecular Weight of LRFN3: 66 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



LRFN3 (N-14): sc-241528. Western blot analysis of LRFN3 expression in Hep G2 (A), K-562 (B), Jurkat (C) and NIH/3T3 (D) 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.