SANTA CRUZ BIOTECHNOLOGY, INC.

FRRS1L (N-20): sc-246011

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

AMPA (α-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid) receptor is a non-NMDA-type ionotropic transmembrane glutamate receptor that mediates fast synaptic transmission in the central nervous system (CNS). FRRS1L (ferric-chelate reductase 1-like), also known as brain protein CG-6 or C9orf4, is a 344 amino acid single-pass membrane protein that is primarily expressed in adult and fetal brain and is weakly expressed in spinal cord, adult ovary and medulla. FRRS1L is a component of the outer core of AMPAR complex. Auxiliary subunits control the gating properties and surface trafficking of the AMPAR complex and impact their biogenesis and protein processing. FRRS1L consist of one DOMON domain and is e ncoded by a gene located on human chromosome 9q31.3.

REFERENCES

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3. Perkinton, M.S., et al. 1999. Ca^{2+}-permeable AMPA receptors induce phosphorylation of cAMP response element-binding protein through a phosphatidylinositol 3-kinase-dependent stimulation of the mitogen-activated protein kinase signaling cascade in neurons. J. Neurosci. 19: 5861-5874.
4. Chadwick, B.P., et al. 2000. Cloning, mapping, and expression of a novel brain-specific transcript in the familial dysautonomia candidate region on chromosome 9q31. Mamm. Genome 11: 81-83.
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6. Ha, B.K., et al. 2002. Kainate-induced excitotoxicity is dependent upon extracellular potassium concentrations that regulate the activity of AMPA/KA type glutamate receptors. J. Neurochem. 83: 934-945.
7. Song, I. et al. 2002. Regulation of AMPA receptors during synaptic plasticity. Trends Neurosci. 25: 578-588.
8. Mayer, M.L. 2005. Glutamate receptor ion channels. Curr. Opin. Neurobiol. 15: 282-288.
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CHROMOSOMAL LOCATION

Genetic locus: FRRS1L (human) mapping to 9q31.3.

SOURCE

FRRS1L (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of FRRS1L 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.

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-246011 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FRRS1L (N-20) is recommended for detection of FRRS1L of 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).

Suitable for use as control antibody for FRRS1L siRNA (h): sc-92770, FRRS1L shRNA Plasmid (h): sc-92770-SH and FRRS1L shRNA (h) Lentiviral Particles: sc-92770-V.

Molecular Weight of FRRS1L: 37 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **FRRS1L (H-8): sc-398692**, our highly recommended monoclonal alternative to FRRS1L (N-20).