

FRRS1L (Q-20): sc-246012

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 (ferrous-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 encoded by a gene located on human chromosome 9q31.3.

REFERENCES

1. Honoré, T., et al. 1982. The binding of [3H]AMPA, a structural analogue of glutamic acid, to rat brain membranes. *J. Neurochem.* 38: 173-178.
2. Brinkmeier, H. et al. 1987. Activators of protein kinase C induce myotonia by lowering chloride conductance in muscle. *Biochem. Biophys. Res. Commun.* 148: 1383-1389.
3. Perkinson, 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.
5. Beattie, E.C., et al. 2000. Regulation of AMPA receptor endocytosis by a signaling mechanism shared with LTD. *Nat. Neurosci.* 3: 1291-1300.
6. Song, I. et al. 2002. Regulation of AMPA receptors during synaptic plasticity. *Trends Neurosci.* 25: 578-588.

CHROMOSOMAL LOCATION

Genetic locus: FRRS1L (human) mapping to 9q31.3; Frrs1l (mouse) mapping to 4 B3.

SOURCE

FRRS1L (Q-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FRRS1L of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-246012 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

FRRS1L (Q-20) is recommended for detection of FRRS1L of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

FRRS1L (Q-20) is also recommended for detection of FRRS1L in additional species, including equine, canine and avian.

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

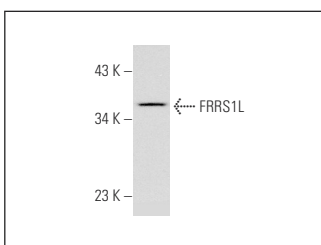
Molecular Weight of FRRS1L: 37 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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



FRRS1L (Q-20): sc-246012. Western blot analysis of FRRS1L expression in Hep G2 whole cell lysate.

RESEARCH USE

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



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