

GluR- δ 1 (P-14): sc-162883

BACKGROUND

Glutamate receptors mediate most excitatory neurotransmissions in the brain and play an important role in neural plasticity, neural development and neurodegeneration. Ionotropic glutamate receptors are divided into two categories, namely NMDA receptors and kainate/AMPA receptors, both of which contain glutamate-gated, cation-specific ion channels. Kainate/AMPA receptors consist of seven structurally related subunits, designated GluR-1 to -7, and are primarily responsible for fast excitatory neurotransmissions carried out by glutamate. GluR- δ 1 (glutamate receptor δ -1 subunit), also known as GRID1, is a multi-pass membrane protein that belongs to the kainate/AMPA receptor family and is expressed primarily in the brain. Localized to the cell junction and the postsynaptic cell membrane, GluR- δ 1 functions as a glutamate receptor that regulates synaptic transmissions in the central nervous system (CNS) and is thought to play an important role in synaptic plasticity. Defects in the gene encoding GluR- δ 1 are associated with schizophrenia, a chronic and severe brain disorder.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GRID1 (human) mapping to 10q23.1; Grid1 (mouse) mapping to 14 B.

SOURCE

GluR- δ 1 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of GluR- δ 1 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-162883 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GluR- δ 1 (P-14) is recommended for detection of GluR- δ 1 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 GluR- δ 2.

GluR- δ 1 (P-14) is also recommended for detection of GluR- δ 1 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for GluR- δ 1 siRNA (h): sc-90605, GluR- δ 1 siRNA (m): sc-145448, GluR- δ 1 shRNA Plasmid (h): sc-90605-SH, GluR- δ 1 shRNA Plasmid (m): sc-145448-SH, GluR- δ 1 shRNA (h) Lentiviral Particles: sc-90605-V and GluR- δ 1 shRNA (m) Lentiviral Particles: sc-145448-V.

Molecular Weight of GluR- δ 1: 112 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.

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.

PROTOCOLS

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