

GluR- δ 1 (2B7): sc-81878

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 (2B7) is a mouse monoclonal antibody raised against recombinant GluR- δ 1 of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

GluR- δ 1 (2B7) 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), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

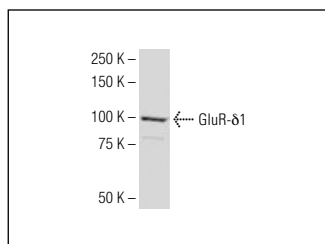
Molecular Weight of GluR- δ 1: 112 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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).

DATA



GluR- δ 1 (2B7): sc-81878. Western blot analysis of GluR- δ 1 expression in HeLa whole cell lysate.

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 for detailed protocols and support products.