

Grid2ip (I-20): sc-68553

BACKGROUND

Grid2ip (glutamate receptor, ionotropic, $\delta 2$ (Grid2 or GluR- $\delta 2$) interacting protein 1), also known as delphilin, is a postsynaptic scaffolding protein that contains one formin homology 2 (FH2) domain and two PDZ (postsynaptic density-95/discs-large/ZO-1) domains. Expressed in Purkinje cells of the cerebellum and localizing specifically to parallel fiber synapses, Grid2ip interacts with the C-terminus of GluR- $\delta 2$ and, via this interaction, links GluR- $\delta 2$ with various signaling molecules and the actin cytoskeleton. GluR- $\delta 2$ is a glutamate receptor with an important role in motor learning, cerebellar wiring and synaptic plasticity. Due to alternative splicing events, three Grid2ip isoforms exist, namely L-delphilin, S-delphilin (or delphilin- α) and delphilin- β . Each isoform exhibits individual expression patterns and protein interactions. Isoform 2, delphilin- α , is palmitoylated, a modification that is essential for the enhanced expression of GluR- $\delta 2$ on the cell surface. This modification of delphilin- α also mediates the accumulation of delphilin- α in dendritic spines.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GRID2IP (human) mapping to 7p22.1; Grid2ip (mouse) mapping to 5 G2.

SOURCE

Grid2ip (I-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Grid2ip of mouse 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-68553 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Grid2ip (I-20) is recommended for detection of Grid2ip 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).

Grid2ip (I-20) is also recommended for detection of Grid2ip in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Grid2ip siRNA (h): sc-75198, Grid2ip siRNA (m): sc-75199, Grid2ip shRNA Plasmid (h): sc-75198-SH, Grid2ip shRNA Plasmid (m): sc-75199-SH, Grid2ip shRNA (h) Lentiviral Particles: sc-75198-V and Grid2ip shRNA (m) Lentiviral Particles: sc-75199-V.

Molecular Weight (predicted) of Grid2ip: 132 kDa.

Molecular Weight (observed) of Grid2ip: 118 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.


 MONOS
Satisfaction
Guaranteed

Try **Grid2ip (A-4): sc-390952**, our highly recommended monoclonal alternative to Grid2ip (I-20).