

# Grid2ip (M-190): sc-68439

## 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- $\alpha$ ) and delphilin- $\beta$ . Each isoform exhibits individual expression patterns and protein interactions. Isoform 2, delphilin- $\alpha$ , is palmitoylated, a modification that is essential for the enhanced expression of GluR- $\delta 2$  on the cell surface. This modification of delphilin- $\alpha$  also mediates the accumulation of delphilin- $\alpha$  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 (M-190) is a rabbit polyclonal antibody raised against amino acids 91-280 mapping near the N-terminus of Grid2ip of mouse origin.

## PRODUCT

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

## APPLICATIONS

Grid2ip (M-190) 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), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

Grid2ip (M-190) 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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Grid2ip (A-4): sc-390952**, our highly recommended monoclonal alternative to Grid2ip (M-190).