

PCP-2 (N-17): sc-49072

BACKGROUND

Purkinje cells are densely branching neurons characteristic of the cerebellar cortex. Purkinje cell protein-2 (PCP-2 or L7) is a G protein regulator abundant in Purkinje cells and retinal bipolar neurons. PCP-2 belongs to a family of proteins containing a GoLoco or GPR (G protein regulatory) motif named for the $G_{i/o}$ interacting protein Loco, the *Drosophila* RGS12 homolog. PCP-2 protein interacts with the $G_{\alpha i/o}$ family of G proteins to inhibit GDP release. This indicates that the co-localization and association of $G_{\alpha i/o}$ and PCP-2 in cerebellum may play a functional role in regions of synaptic activity, as well as neural differentiation. The Purkinje type calcium channels may be physiological effectors of PCP-2 because they are the major voltage-dependent channels that modulate cell output and are regulated by $G_{i/o}$ proteins. PCP-2 is only detected in higher vertebrates, suggesting that it may be a marker of more recent evolutionary development of cerebellar Purkinje cells.

CHROMOSOMAL LOCATION

Genetic locus: PCP2 (human) mapping to 19p13.2; Pcp2 (mouse) mapping to 8 A1.1.

SOURCE

PCP-2 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PCP-2 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-49072 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

PCP-2 (N-17) is recommended for detection of PCP-2 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PCP-2 siRNA (h): sc-61307, PCP-2 siRNA (m): sc-61308, PCP-2 shRNA Plasmid (h): sc-61307-SH, PCP-2 shRNA Plasmid (m): sc-61308-SH, PCP-2 shRNA (h) Lentiviral Particles: sc-61307-V and PCP-2 shRNA (m) Lentiviral Particles: sc-61308-V.

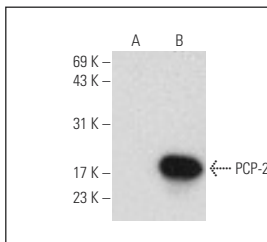
Molecular Weight of PCP-2: 16 kDa.

Positive Controls: PCP-2 (m2): 293T Lysate: sc-122438.

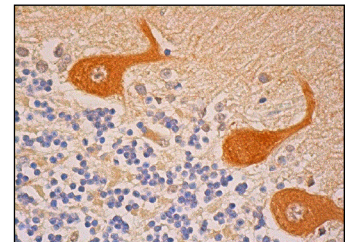
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



PCP-2 (N-17): sc-49072. Western blot analysis of PCP-2 expression in non-transfected: sc-117752 (A) and mouse PCP-2 transfected: sc-122438 (B) 293T whole cell lysates.



PCP-2 (N-17): sc-49072. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic staining of Purkinje cells.

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 **PCP-2 (F-3): sc-137064**, our highly recommended monoclonal alternative to PCP-2 (N-17).