

# PCP-2 (C-12): sc-49071

## 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.

## REFERENCES

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## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## CHROMOSOMAL LOCATION

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

## SOURCE

PCP-2 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of PCP-2 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-49071 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PCP-2 (C-12) 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), 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).

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.

## 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.

## 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 **PCP-2 (F-3): sc-137064**, our highly recommended monoclonal alternative to PCP-2 (C-12).