

PCP-4 (C-15): sc-74816

BACKGROUND

PCP-4 (purkinje cell protein 4), also known as PEP-19, is a calmodulin (CaM) regulatory protein that is highly expressed in neuronal cells. Through its IQ motif, PCP-4 mediates both the calcium-dependent binding properties of CaM and the rates of association and dissociation of calcium from the C-terminal domain of CaM. The IQ motif contains a serine residue which can be phosphorylated by all isoforms of protein kinase C (PKC). PCP-4 is implicated in uterine leiomyomas as well as in neurodegenerative disorders such as Alzheimer's disease and Huntington's disease. Additionally, overexpression of PCP-4 is thought to play a role in cerebellar hypoplasia, a key feature of Down syndrome.

REFERENCES

1. Erhardt, J.A., et al. 2000. Expression of PEP-19 inhibits apoptosis in PC12 cells. *Neuroreport* 11: 3719-3723.
2. Slemmon, J.R., et al. 2000. Small proteins that modulate calmodulin-dependent signal transduction: effects of PEP-19, neuromodulin, and neurogranin on enzyme activation and cellular homeostasis. *Mol. Neurobiol.* 22: 99-113.

CHROMOSOMAL LOCATION

Genetic locus: PCP4 (human) mapping to 21q22.2; Pcp4 (mouse) mapping to 16 C4.

SOURCE

PCP-4 (C-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of PCP-4 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-74816 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PCP-4 (C-15) is recommended for detection of PCP-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

PCP-4 (C-15) is also recommended for detection of PCP-4 in additional species, including canine and avian.

Suitable for use as control antibody for PCP-4 siRNA (h): sc-76091, PCP-4 siRNA (m): sc-76092, PCP-4 shRNA Plasmid (h): sc-76091-SH, PCP-4 shRNA Plasmid (m): sc-76092-SH, PCP-4 shRNA (h) Lentiviral Particles: sc-76091-V and PCP-4 shRNA (m) Lentiviral Particles: sc-76092-V.

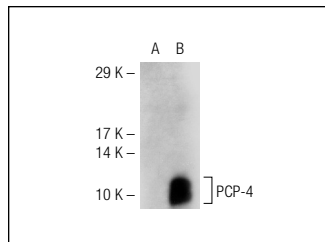
Molecular Weight of PCP-4: 7 kDa.

Positive Controls: PCP-4 (h): 293T Lysate: sc-113353.

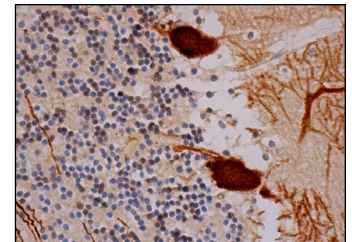
RECOMMENDED SECONDARY REAGENTS

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™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 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™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



PCP-4 (C-15): sc-74816. Western blot analysis of PCP-4 expression in non-transfected: sc-117752 (A) and human PCP-4 transfected: sc-113353 (B) 293T whole cell lysates.



PCP-4 (C-15): sc-74816. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic and nuclear staining of Purkinje cells and cells in granular layer and neuropil staining of cells in molecular layer.

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 **PCP-4 (1E3): sc-293258**, our highly recommended monoclonal alternative to PCP-4 (C-15).