SANTA CRUZ BIOTECHNOLOGY, INC.

PCP-4 (Q-20): sc-74817

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 (Q-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of PCP-4 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-74817 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PCP-4 (Q-20) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PCP-4 (Q-20) is also recommended for detection of PCP-4 in additional species, including canine, bovine 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.

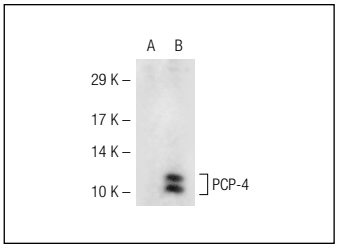
Molecular Weight of PCP-4: 7 kDa.

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.

DATA



PCP-4 (Q-20): sc-74817. 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.

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.