SANTA CRUZ BIOTECHNOLOGY, INC.

PAMCI (N-16): sc-109381

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PAMCI (peptidylglycine α-amidating monooxygenase COOH-terminal interactor), also known as RASSF9 (Ras association domain-containing protein 9) or PCIP1, is a 435 amino acid protein that localizes to perinuclear endosomes and contains one Ras-associating domain. Expressed in kidney, liver, brain, testis, heart, lung and skeletal muscle, PAMCI interacts with PAM (peptidylglycine α-amidating monooxygenase) and is thought to regulate the vesicular trafficking of PAM through secretory and endosomal pathways. Human PAMCI shares 85% sequence similarity with its rat counterpart, suggesting a conserved role between species. The gene encoding PAMCI maps to human chromosome 12, which houses over 1,100 genes and comprises approximately 4.5% of the human genome.

REFERENCES

1. Eipper, B.A., et al. 1992. Alternative splicing and endoproteolytic processing generate tissue-specific forms of pituitary peptidylglycine α-amidating monooxygenase (PAM). J. Biol. Chem. 267: 4008-4015.
2. Eipper, B.A., et al. 1993. Peptidylglycine α-amidating monooxygenase: a multifunctional protein with catalytic, processing, and routing domains. Protein Sci. 2: 489-497.
3. Chen, L., et al. 1998. P-CIP1, a novel protein that interacts with the cytosolic domain of peptidylglycine α-amidating monooxygenase, is associated with endosomes. J. Biol. Chem. 273: 33524-33532.
4. Montgomery, K.T., et al. 2001. A high-resolution map of human chromosome 12. Nature 409: 945-946.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610383. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Sherwood, V., et al. 2008. RASSF7 is a member of a new family of Ras association domain-containing proteins and is required for completing mitosis. Mol. Biol. Cell 19: 1772-1782.

CHROMOSOMAL LOCATION

Genetic locus: RASSF9 (human) mapping to 12q21.31; Pamci (mouse) mapping to 10 D1.

SOURCE

PAMCI (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PAMCI 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-109381 P, (100 µg 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

PAMCI (N-16) is recommended for detection of PAMCI 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); non cross-reactive with family member PAM.

PAMCI (N-16) is also recommended for detection of PAMCI in additional species, including equine and bovine.

Suitable for use as control antibody for PAMCI siRNA (h): sc-96236, PAMCI siRNA (m): sc-152001, PAMCI shRNA Plasmid (h): sc-96236-SH, PAMCI shRNA Plasmid (m): sc-152001-SH, PAMCI shRNA (h) Lentiviral Particles: sc-96236-V and PAMCI shRNA (m) Lentiviral Particles: sc-152001-V.

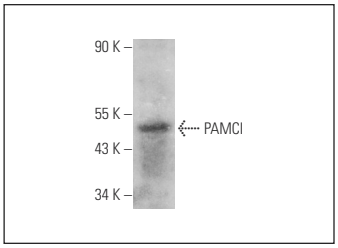
Molecular Weight of PAMCI: 50 kDa.

Positive Controls: mouse liver extract: sc-2256.

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.

DATA



PAMCI (N-16): sc-109381. Western blot analysis of PAMCI expression in mouse liver tissue extract.

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.