

## PP2C $\gamma$ (L-16): sc-50853

### BACKGROUND

Eukaryotic protein phosphorylation and dephosphorylation on serine and threonine residues regulates numerous cell functions, including division, homeostasis and apoptosis. A group of proteins that play a major role in this process are the serine/threonine protein phosphatases. Protein phosphatase (PP) holoenzyme is a trimeric complex that contains a regulatory subunit, a variable subunit and a catalytic subunit. PP2C family members are negative regulators of cell stress response pathways. The PP2C $\gamma$  enzyme localizes to the cytoplasm and is widely expressed, with most abundant expression detected in the testis, skeletal muscle, and heart. It is necessary for the dephosphorylation of Pre-mRNA splicing factors, which is an important process for the formation of the functional spliceosome.

### REFERENCES

1. Travis, S.M. and Welsh, M.J. 1997. PP2C $\gamma$ : a human protein phosphatase with a unique acidic domain. *FEBS Lett.* 412: 415-419.
2. Murray, M.V., et al. 1999. The type 2C Ser/Thr phosphatase PP2C $\gamma$  is a pre-mRNA splicing factor. *Genes Dev.* 13: 87-97.
3. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605119. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Gerhard, D.S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). *Genome Res.* 14: 2121-2127.
5. Brautigam, D.L., et al. 2005. Allosteric activation of protein phosphatase 2C by D-chiro-inositol-galactosamine, a putative mediator mimetic of Insulin action. *Biochemistry* 44: 11067-11073.

### CHROMOSOMAL LOCATION

Genetic locus: PPM1G (human) mapping to 2p23.3; Ppm1g (mouse) mapping to 5 B1.

### SOURCE

PP2C $\gamma$  (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PP2C $\gamma$  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-50853 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

### APPLICATIONS

PP2C $\gamma$  (L-16) is recommended for detection of PP2C $\gamma$  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), 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).

PP2C $\gamma$  (L-16) is also recommended for detection of PP2C $\gamma$  in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PP2C $\gamma$  siRNA (h): sc-61388, PP2C $\gamma$  siRNA (m): sc-61390, PP2C $\gamma$  shRNA Plasmid (h): sc-61388-SH, PP2C $\gamma$  shRNA Plasmid (m): sc-61390-SH, PP2C $\gamma$  shRNA (h) Lentiviral Particles: sc-61388-V and PP2C $\gamma$  shRNA (m) Lentiviral Particles: sc-61390-V.

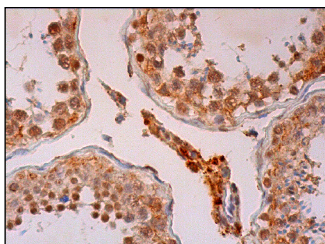
Molecular Weight of PP2C $\gamma$ : 68 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

### 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz<sup>™</sup>: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

### DATA



PP2C $\gamma$  (L-16): sc-50853. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts and Leydig cells.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

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Try **PP2C $\gamma$  (D-7): sc-390625** or **PP2C $\gamma$  (7): sc-136320**, our highly recommended monoclonal alternatives to PP2C $\gamma$  (L-16).