

PP2C γ (V-20): sc-50857

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. Families of PP catalytic subunits include PP1 (PP1 α , β and γ), PP2A (α and β), PP2B (calcineurin, PP2B α , β and γ), PP2C (α , β , γ , η and Wip1), PP4 (PPX) and PP5 (PPT). PP2C family members are negative regulators of cell stress response pathways. The PP2C γ enzyme localizes to the cytoplasm and is widely expressed, with most abundant expression detected in 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 γ : 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 γ is a pre-mRNA splicing factor. *Genes Dev.* 13: 87-97.
3. Online Mendelian Inheritance in Man, OMIM™. 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.

CHROMOSOMAL LOCATION

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

SOURCE

PP2C γ (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PP2C γ of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-50857 P, (100 μ g 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

PP2C γ (V-20) is recommended for detection of PP2C γ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

PP2C γ (V-20) is also recommended for detection of PP2C γ in additional species, including equine, canine, bovine and porcine.

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

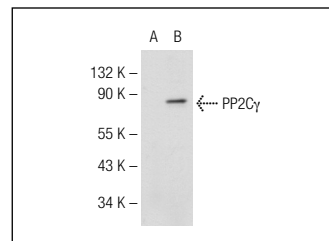
Molecular Weight of PP2C γ : 68 kDa.

Positive Controls: PP2C γ (h2): 293T Lysate: sc-172856 or Jurkat whole cell lysate: sc-2204.

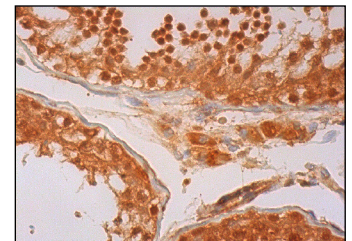
RECOMMENDED SECONDARY REAGENTS

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™ 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



PP2C γ (V-20): sc-50857. Western blot analysis of PP2C γ expression in non-transfected: sc-117752 (A) and human PP2C γ transfected: sc-172856 (B) 293T whole cell lysates.



PP2C γ (V-20): sc-50857. 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.