

PP2C γ (k1G6): sc-135627

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 γ 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 γ : a human protein phosphatase with a unique acidic domain. *FEBS Lett.* 412: 415-419.
2. Murray, M.V., Kobayashi, R. and Krainer, A.R. 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., Wagner, L., Feingold, E.A., Shenmen, C.M., Grouse, L.H., Schuler, G., Klein, S.L., Old, S., Rasooly, R., Good, P., Guyer, M., Peck, A.M., Derge, J.G., Lipman, D., Collins, F.S., Jang, W., Sherry, 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. Brautigan, D.L., Brown, M., Grindrod, S., Chinigo, G., Kruszewski, A., Lukasik, S.M., Bushweller, J.H., Horal, M., Keller, S., Tamura, S., Heimark, D.B., Price, J., Larner, A.N. and Larner, J. 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.

SOURCE

PP2C γ (k1G6) is a mouse monoclonal antibody raised against amino acids 317-546 corresponding to recombinant PP2C γ of human origin.

PRODUCT

Each vial contains 50 μ g IgG₁ in 500 μ l of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

APPLICATIONS

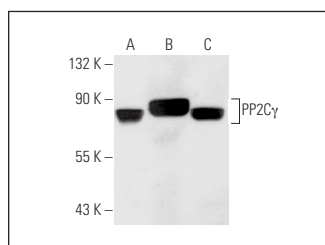
PP2C γ (k1G6) is recommended for detection of PP2C γ of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

Molecular Weight of PP2C γ : 68 kDa.

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

DATA



PP2C γ (k1G6): sc-135627. Western blot analysis of PP2C γ expression in non-transfected 293T: sc-117752 (A), human PP2C γ transfected 293T: sc-172856 (B) and Jurkat (C) whole cell lysates.

PROTOCOLS

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