SANTA CRUZ BIOTECHNOLOGY, INC.

PP2Cγ (h2): 293T Lysate: sc-172856

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 PP2Cγ 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. PP2Cγ: 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 PP2Cγ 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.
5. Brautigan, 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.

PRODUCT

PP2Cγ (h2): 293T Lysate represents a lysate of human PP2Cγ transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

PP2Cγ (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive PP2Cγ antibodies. Recommended use: 10-20 µl per lane.

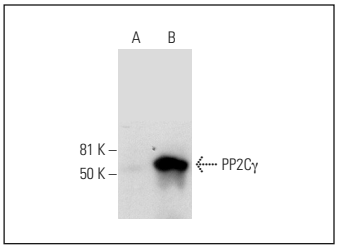
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PP2Cγ (G-11): sc-390983 is recommended as a positive control antibody for Western Blot analysis of enhanced human PP2Cγ expression in PP2Cγ transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



PP2Cγ (G-11): sc-390983. Western blot analysis of PP2Cγ expression in non-transfected: sc-117752 (**A**) and human PP2Cγ transfected: sc-172856 (**B**) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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