SANTA CRUZ BIOTECHNOLOGY, INC.

PP2B-B1 (C-17): sc-6119

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

In eukaryotes, the phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions including division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the protein phosphatases. In general, the protein phosphatase (PP) holoenzyme is a trimeric complex composed of a regulatory subunit, a variable subunit and a catalytic subunit. Four major families of protein phosphatase catalytic subunit have been identified, designated PP1, PP2A, PP2B and PP2C. An additional protein phosphatase catalytic subunit, PPX (also known as PP4), is a putative member of a novel PP family. The PP2B family comprises subfamily members PP2B-Aα, PP2B-Aβ and PP2B-Aγ. Two additional regulatory subunits been identified, designated PP2B-B1 and PP2B-B2.

REFERENCES

1. Ueki, K., et al. 1992. Structure and expression of two isoforms of the murine calmodulin-dependent protein phosphatase regulatory subunit (calcineurin B). Biochem. Biophys. Res. Commun. 187: 537-543.
2. Cohen, P.T. 1993. Important roles for novel protein phosphatases dephosphorylating serine and threonine residues. Biochem. Soc. Trans. 21: 884-888.
3. Hendrix, P., et al. 1993. Structure and expression of a 72 kDa regulatory subunit of protein phosphatase 2A. Evidence for different size forms produced by alternative splicing. J. Biol. Chem. 268: 15267-15276.
4. Mumby, M.C., et al. 1993. Protein serine/threonine phosphatases: structure, regulation, and functions in cell growth. Phys. Rev. 73: 673-699.
5. Okubo, S., et al. 1994. A regulatory subunit of smooth muscle myosin bound phosphatase. Biochem. Biophys. Res. Commun. 200: 429-434.

CHROMOSOMAL LOCATION

Genetic locus: PPP3R1 (human) mapping to 2p14, PPP3R2 (human) mapping to 9q31.1; Ppp3r1 (mouse) mapping to 11 A2, Ppp3r2 (mouse) mapping to 4 B1.

SOURCE

PP2B-B1 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of PP2B-B1 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-6119 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.

RESEARCH USE

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

APPLICATIONS

PP2B-B1 (C-17) is recommended for detection of PP2B-B1 and, to a lesser extent, PP2B-B2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PP2B-B1 (C-17) is also recommended for detection of PP2B-B1 and, to a lesser extent, PP2B-B2 in additional species, including equine, canine, bovine, porcine and avian.

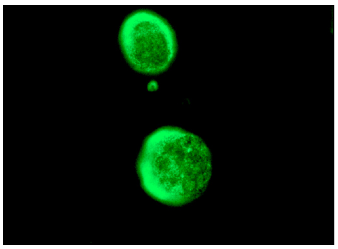
Molecular Weight of PP2B-B1: 19 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

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) 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



PP2B-B1 (C-17): sc-6119. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Pack-Chung, E., et al. 2000. Presenilin 2 interacts with sorcin, a modulator of the ryanodine receptor. J. Biol. Chem. 275: 14440-14445.
2. Canté-Barrett, K., et al. 2006. Thymocyte negative selection is mediated by protein kinase C^{-} and Ca^{2+}-dependent transcriptional induction of Bim. J. Immunol. 176: 2299-2306.

MONOS Satisfaction Guaranteed

Try **PP2B-B1/2 (D-1): sc-373803** or **PP2B-B1 (70-A): sc-130393**, our highly recommended monoclonal alternatives to PP2B-B1 (C-17).