## SANTA CRUZ BIOTECHNOLOGY, INC.

# p-PP2A-Cα/β (4B10): sc-81602



## 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 subunits have been identified, designated PP1, PP2A, PP2B (calcineurin) and PP2C. An additional protein phosphatase catalytic subunit, PPX (also known as PP4) is a putative member of a novel PP family. The PP2A family comprises subfamily members PP2A $\alpha$  and PP2A $\beta$ . The PP2A catalytic subunit associates with a variety of regulatory subunits. Regulatory subunits include PP2A-A $\alpha$  and -A $\beta$ , PP2A-B $\alpha$  and -B $\beta$ , PP2A-C $\alpha$  and -C $\beta$ , and PP2A-B5 $\delta\alpha$  and -B5 $\delta\beta$ .

### REFERENCES

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- 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.
- Mumby, M.C., et al. 1993. Protein serine/threonine phosphatases: structure, regulation and functions in cell growth. Physiol. Rev. 73: 673-699.
- Okubo, S., et al. 1994. A regulatory subunit of smooth muscle Myosin bound phosphatase. Biochem. Biophys. Res. Commun. 200: 429-434.
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- Van Eynde, A., et al. 1995. Molecular cloning of NIPP1, a nuclear inhibitor of protein phosphatase-1, reveals homology with polypeptides involved in RNA processing. J. Biol. Chem. 270: 28068-28074.

## CHROMOSOMAL LOCATION

Genetic locus: PPP2CA (human) mapping to 5q31.1, PPP2CB (human) mapping to 8p12.

#### SOURCE

p-PP2A-C $\alpha/\beta$  (4B10) is a mouse monoclonal antibody raised against C-terminal amino acids 302-309 Tyr 307 phosphorylated PP2A-C of human origin.

#### PRODUCT

Each vial contains 200  $\mu g$  lgG\_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## **RESEARCH USE**

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

## APPLICATIONS

p-PP2A-C $\alpha/\beta$  (4B10) is recommended for detection of phosphorylated PP2A-C $\alpha$  and  $\beta$  isoforms of human origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of p-PP2A-Cα/β: 36 kDa.

## **STORAGE**

Store at 4° C, \*\*D0 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 for detailed protocols and support products.



See **p-PP2A-C\alpha/\beta (F-8): sc-271903** for p-PP2A-C $\alpha/\beta$  antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor<sup>®</sup> 488, 546, 594, 647, 680 and 790.