

# PP2B-A $\gamma$ (S-21): sc-130848

## 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-A $\alpha$ , PP2B-A $\beta$  and PP2B-A $\gamma$ . Two additional regulatory subunits been identified, designated PP2B-B1 and PP2B-B2.

## REFERENCES

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2. Mumby, M.C., et al. 1993. Protein serine/threonine phosphatases: structure, regulation, and functions in cell growth. *Phys. Rev.* 73: 673-699.
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. Cohen, P.T. 1993. Important roles for novel protein phosphatases dephosphorylating serine and threonine residues. *Biochem. Soc. Trans.* 21: 884-888.
5. Okubo, S., et al. 1994. A regulatory subunit of smooth muscle myosin bound phosphatase. *Biochem. Biophys. Res. Comm.* 200: 429-434.
6. Wera, S., et al. 1995. Serine/threonine protein phosphatases. *Biochem. J.* 311: 17-29.
7. Lohse, D.L., et al. 1995. Insights derived from the structures of the Ser/Thr phosphatases calcineurin and protein phosphatase 1. *Structure* 3: 987-990.

## CHROMOSOMAL LOCATION

Genetic locus: PPP3CC (human) mapping to 8p21.3.

## SOURCE

PP2B-A $\gamma$  (S-21) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of PP2B-A $\gamma$  of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml 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.

## APPLICATIONS

PP2B-A $\gamma$  (S-21) is recommended for detection of PP2B-A $\gamma$  of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

Suitable for use as control antibody for PP2B-A $\gamma$  siRNA (h): sc-39197, PP2B-A $\gamma$  shRNA Plasmid (h): sc-39197-SH and PP2B-A $\gamma$  shRNA (h) Lentiviral Particles: sc-39197-V.

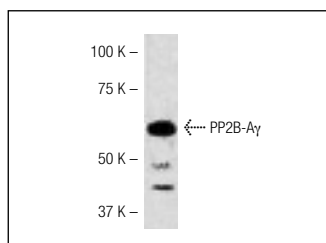
Molecular Weight of PP2B-A $\gamma$ : 57 kDa.

Positive Controls: A-375 cell lysate: sc-3811 or human hepatocarcinoma tissue.

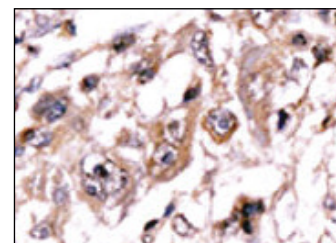
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



PP2B-A $\gamma$  (S-21): sc-130848. Western blot analysis of PP2B-A $\gamma$  expression in A-375 whole cell lysate.



PP2B-A $\gamma$  (S-21): sc-130848. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human hepatocarcinoma tissue showing cytoplasmic localization.

## RESEARCH USE

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

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Try **PP2B-A $\gamma$  (4D1): sc-293361**, our highly recommended monoclonal alternative to PP2B-A $\gamma$  (S-21).