Background: Protein phosphatase type 2A (PP2A) is an essential protein serine/threonine phosphatase that is conserved in all eukaryotes. PP2A is a key enzyme within various signal transduction pathways as it regulates fundamental cellular activities such as DNA replication, transcription, translation, metabolism, cell cycle progression, cell division, apoptosis and development (1-3). The core enzyme consists of catalytic C and regulatory A (or PR65) subunits, with each subunit represented by α and β isomers (1). Additional regulatory subunits belong to four different families of unrelated proteins. Both the B (or PR55) and B’ regulatory protein families contain α, β, γ, and δ isomers, with the B’ family also including an ε protein. B” family proteins include PR72, PR130, PR59 and PR48 isoforms, while striatin (PR110) and SG2NA (PR93) are both members of the B” regulatory protein family. These B subunits competitively bind to a shared binding site on the core A subunit (1). This variable array of holoenzyme components, particularly regulatory B subunits, allows PP2A to act in a diverse set of functions. PP2A function is regulated by expression, localization, holoenzyme composition and post-translational modification. Phosphorylation of PP2A at Tyr307 by Src occurs in response to EGF or insulin and post-translational modification. Phosphorylation of PP2A at Tyr307 by Src occurs in response to EGF or insulin.

Specificity/Sensitivity: PP2A B Subunit Antibody detects endogenous levels of the PR55 PP2A B subunit (α isoform). The antibody may also recognize the β, γ, and δ isoforms of the PR55 PP2A B subunit. This antibody does not cross-react with the B’-prime (PR61), B’-prime-prime, or B’-prime-prime-prime families of PP2A B subunits.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acids near the amino terminus of human PP2A B-subunit. Antibodies are purified by protein A and peptide affinity chromatography.

Recommended Antibody Dilutions:
- Western Blotting: 1:1000
- Immunoprecipitation: 1:100
- Immunohistochemistry (Paraffin): 1:150†
- Flow Cytometry: 1:100
- Immunofluorescence (IF-IC): 1:100

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA and 50% glycerol. Store at −20°C.

Do not aliquot the antibody.

**Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

Background References:

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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Immunohistochemical analysis of paraffin-embedded human colon carcinoma using PP2A B Subunit Antibody.


Immunofluorescent analysis of paraformaldehyde fixed HeLa cells using PP2A B Subunit Antibody.