

## PP6 (S-22): sc-130849

### 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. PP6 (protein phosphatase 6), also known as PPP6C, is a 305 amino acid cytoplasmic protein that belongs to the PPP phosphatase family. Ubiquitously expressed, PP6 is component of a signaling pathway regulating cell cycle progression in response to IL-2 receptor stimulation and is involved in suppressing inflammatory responses by specifically downregulating TR4.

### REFERENCES

- Huang, X. and Honkanen, R.E. 1998. Molecular cloning, expression, and characterization of a novel human serine/threonine protein phosphatase, PP7, that is homologous to *Drosophila* retinal degeneration C gene product (rdgC). *J. Biol. Chem.* 273: 1462-1468.
- Honkanen, R.E. and Golden, T. 2002. Regulators of serine/threonine protein phosphatases at the dawn of a clinical era? *Curr. Med. Chem.* 9: 2055-2075.
- Goshima, G., et al. 2003. The role of Ppe1/PP6 phosphatase for equal chromosome segregation in fission yeast kinetochore. *EMBO J.* 22: 2752-2763.
- Kloeker, S., et al. 2003. Parallel purification of three catalytic subunits of the protein serine/ threonine phosphatase 2A family (PP2A(C), PP4(C), and PP6(C)) and analysis of the interaction of PP2A(C) with  $\alpha$ 4 protein. *Protein Expr. Purif.* 31: 19-33.
- Stefansson, B. and Brautigam, D.L. 2006. Protein phosphatase 6 subunit with conserved Sit4-associated protein domain targets I $\kappa$ B $\epsilon$ . *J. Biol. Chem.* 281: 22624-22634.

### CHROMOSOMAL LOCATION

Genetic locus: PPP6C (human) mapping to 9q33.3.

### SOURCE

PP6 (S-22) is a purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of PP6 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

PP6 (S-22) is recommended for detection of PP6 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).

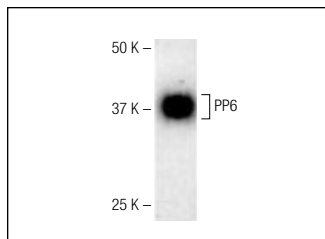
Suitable for use as control antibody for PP6 siRNA (h): sc-76205, PP6 shRNA Plasmid (h): sc-76205-SH and PP6 shRNA (h) Lentiviral Particles: sc-76205-V.

Molecular Weight of PP6: 36 kDa.

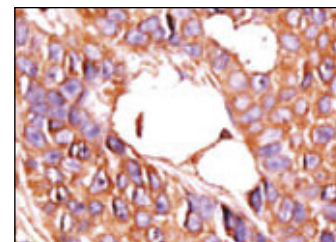
### RECOMMENDED SECONDARY REAGENTS

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



PP6 (S-22): sc-130849. Western blot analysis of PP6 expression in mouse thymus tissue extract.



PP6 (S-22): sc-130849. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing cytoplasmic and membrane localization.

### RESEARCH USE

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

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Try **PP6 (E-2): sc-393294**, our highly recommended monoclonal alternative to PP6 (S-22).