

## PPX (C-18): sc-6118

### 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.

### CHROMOSOMAL LOCATION

Genetic locus: PPP4C (human) mapping to 16p11.2; Ppp4c (mouse) mapping to 7 F3.

### SOURCE

PPX (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of PPX 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-6118 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

PPX (C-18) is recommended for detection of PPX of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

PPX (C-18) is also recommended for detection of PPX in additional species, including equine, canine and bovine.

Suitable for use as control antibody for PPX siRNA (h): sc-39202, PPX siRNA (m): sc-39203, PPX shRNA Plasmid (h): sc-39202-SH, PPX shRNA Plasmid (m): sc-39203-SH, PPX shRNA (h) Lentiviral Particles: sc-39202-V and PPX shRNA (m) Lentiviral Particles: sc-39203-V.

Molecular Weight of PPX: 38 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, JAR cell lysate: sc-2276 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

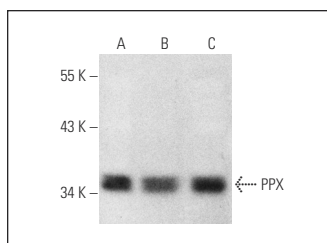
### STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

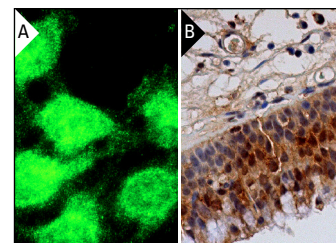
### RESEARCH USE

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

### DATA



PPX (C-18): sc-6118. Western blot analysis of PPX expression in HeLa (A), JAR (B) and NTERA-2 (C) whole cell lysates.



PPX (C-18): sc-6118. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear and cytoplasmic staining of respiratory epithelial cells (B).

### SELECT PRODUCT CITATIONS

- Mourtada-Maarabouni, M., et al. 2003. Functional expression cloning reveals proapoptotic role for protein phosphatase 4. *Cell Death Differ.* 10: 1016-1024.
- Yeh, P.Y., et al. 2004. Suppression of MEK/ERK signaling pathway enhances cisplatin-induced NFκB activation by protein phosphatase 4-mediated NFκB p65 Thr dephosphorylation. *J. Biol. Chem.* 279: 26143-26148.
- Mourtada-Maarabouni, M., et al. 2008. Protein phosphatase 4 regulates apoptosis, proliferation and mutation rate of human cells. *Biochim. Biophys. Acta* 1783: 1490-1502.
- Mourtada-Maarabouni, M. et al. 2009. Protein phosphatase 4 regulates apoptosis in leukemic and primary human T-cells. *Leuk. Res.* 33: 1539-1551.
- Pöll, F., et al. 2011. Rapid dephosphorylation of G protein-coupled receptors by protein phosphatase 1β is required for termination of β-arrestin-dependent signaling. *J. Biol. Chem.* 286: 32931-32936.

### PROTOCOLS

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Try **PPX (C-6): sc-374106**, our highly recommended monoclonal alternative to PPX (C-18).