

## PP2A-Ca Polyclonal Antibody

Catalog No: YT3830

**Reactivity:** Human; Mouse; Rat

**Applications:** WB;IHC;IF;ELISA

Target: PP2AA

Fields: >>mRNA surveillance pathway;>>Sphingolipid signaling pathway;>>Oocyte

meiosis;>>Autophagy - other;>>Autophagy - animal;>>PI3K-Akt signaling

pathway;>>AMPK signaling pathway;>>Adrenergic signaling in cardiomyocytes;>>TGF-beta signaling pathway;>>Hippo signaling pathway;>>Tight junction;>>Dopaminergic synapse;>>Long-term

depression;>>Chagas disease;>>Hepatitis C;>>Human papillomavirus infection

Gene Name: PPP2CA

**Protein Name:** Serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform

Human Gene Id: 5515

**Human Swiss Prot** 

No:

Mouse Gene Id: 19052

P67775

P63330

**Mouse Swiss Prot** 

No:

Rat Gene ld: 24672

Rat Swiss Prot No: P63331

**Immunogen:** The antiserum was produced against synthesized peptide derived from human

PP2A-alpha. AA range:260-309

**Specificity:** PP2A-Ca Polyclonal Antibody detects endogenous levels of PP2A-Ca protein.

**Formulation :** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

1/4



Source: Polyclonal, Rabbit, IgG

Dilution: WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:5000. Not

yet tested in other applications.

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 35kD

**Cell Pathway :** Oocyte meiosis;WNT;WNT-T CELLTGF-beta;Tight junction;Long-term

depression;

**Background:** This gene encodes the phosphatase 2A catalytic subunit. Protein phosphatase

2A is one of the four major Ser/Thr phosphatases, and it is implicated in the negative control of cell growth and division. It consists of a common heteromeric core enzyme, which is composed of a catalytic subunit and a constant regulatory subunit, that associates with a variety of regulatory subunits. This gene encodes

an alpha isoform of the catalytic subunit. [provided by RefSeq, Jul 2008],

**Function:** catalytic activity: A phosphoprotein + H(2)O = a protein +

phosphate.,cofactor:Binds 1 iron ion per subunit.,cofactor:Binds 1 manganese ion

per subunit.,function:PP2A can modulate the activity of phosphorylase B kinase

casein kinase 2, mitogen-stimulated S6 kinase, and MAP-2 kinase. Can

dephosphorylate SV40 large T antigen and p53. Dephosphorylates SV40 large T antigen, preferentially on serine residues 120, 123, 677, and perhaps 679. The C subunit was most active, followed by the AC form, which was more active than the ABC form, and activity of all three forms was strongly stimulated by manganese, and to a lesser extent by magnesium. Dephosphorylation by the AC form, but not C or ABC form is inhibited by small T antigen.,PTM:Phosphorylation of either threonine (by autophosphorylation-activated protein kinase) or tyrosine results in

inactivation of the phosphatase. Auto-dephosphorylation

Subcellular Location:

Cytoplasm . Nucleus . Chromosome, centromere . Cytoplasm, cytoskeleton, spindle pole . In prometaphase cells, but not in anaphase cells, localizes at

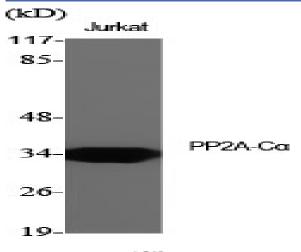
centromeres (PubMed:16541025). During mitosis, also found at spindle poles (PubMed:16541025). Centromeric localization requires the presence of SGO2

(By similarity)...

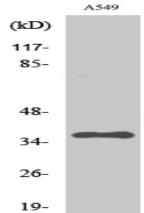
**Expression :** Fibroblast, Liver, Lung, Placenta, Testis, Uterus,



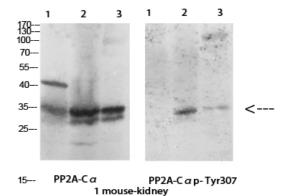




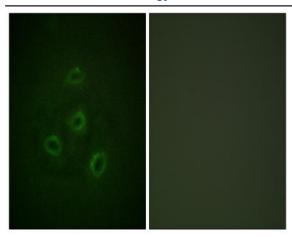
Western Blot analysis of various cells using PP2A-C $\alpha$  Polyclonal Antibody diluted at 1:2000



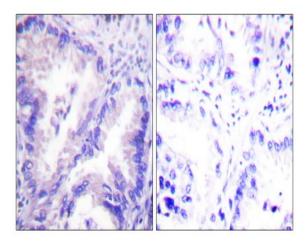
Western Blot analysis of A549 cells using PP2A-C $\alpha$  Polyclonal Antibody diluted at 1:2000



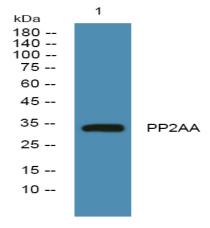
2 Hela-UV 3 Hela Western Blot analysis of various cells using Antibody diluted at 1:1000. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Immunofluorescence analysis of HepG2 cells, using PP2A-alpha Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma tissue, using PP2A-alpha Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from SH-SY5Y cells, primary antibody was diluted at 1:1000, 4° over night