

## **Product Name: PP2A-Cα Rabbit Polyclonal Antibody**

Catalog #: APRab16396

For research use only.

#### **Summary**

**Description** Rabbit polyclonal Antibody

**Host** Rabbit

Application WB,IHC,ICC/IF,ELISA
Reactivity Human,Mouse,Rat
Conjugation Unconjugated
Modification Unmodified

**Isotype** IgG

ClonalityPolyclonalFormLiquidConcentration1mg/ml

**Storage** Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.

**Shipping** Ice bags

Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type **Buffer** 

preservative N.

**Purification** Affinity purification

### **Application**

**Dilution Ratio** WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:5000-1:10000

Molecular Weight 35kDa

# **Antigen Information**

Gene Name PPP2CA

PPP2CA; Serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform; PP2A-

Alternative Names alpha; Replication protein C; RP-C

 Gene ID
 5515.0

 SwissProt ID
 P67775

The antiserum was produced against synthesized peptide derived from human PP2A-alpha.

AA range:260-309

# **Background**

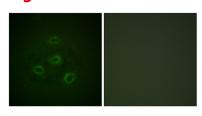


This gene encodes the phosphatase 2A catalytic subunit. Protein phosphatase 2A is one of the four major Ser/Thr phosphatases, and it is implicated in the negative control of cell growth and division. It consists of a common heteromeric core enzyme, which is composed of a catalytic subunit and a constant 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],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. Autodephosphorylation has been suggested as a mechanism for reactivation, PTM: Reversibly methyl esterified on Leu-309. Carboxyl methylation may play a role in holoenzyme assembly. It varies during the cell cycle., similarity: Belongs to the PPP phosphatase family, similarity: Belongs to the PPP phosphatase family. PP-1 subfamily, subcellular location: In prometaphase cells, but not in anaphase cells, localizes at centromeres. During mitosis, also found at spindle poles., subunit:PP2A consists of a common heterodimeric core enzyme, composed of a 36 kDa catalytic subunit (subunit C) and a 65 kDa constant regulatory subunit (PR65 or subunit A), that associates with a variety of regulatory subunits. Proteins that associate with the core dimer include three families of regulatory subunits B (the R2/B/PR55/B55, R3/B"/PR72/PR130/PR59 and R5/B'/B56 families), the 48 kDa variable regulatory subunit, viral proteins, and cell signaling molecules. Interacts with NXN; the interaction is direct (By similarity). May indirectly interact with SGOL1, most probably through regulatory B56 subunits.,

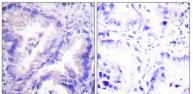
#### **Research Area**

Oocyte meiosis; WNT; WNT-T CELLTGF-beta; Tight junction; Long-term depression;

#### **Image Data**



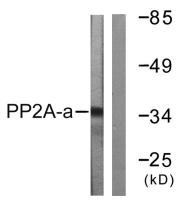
Immunofluorescence analysis of HepG2 cells, using PP2A-alpha Antibody. The picture on the right is blocked with the synthesized peptide.



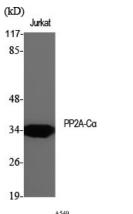
Immunohistochemistry analysis of paraffin-embedded human lung carcinoma tissue, using PP2A-alpha Antibody. The picture on the right is blocked with the synthesized peptide.

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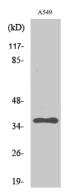




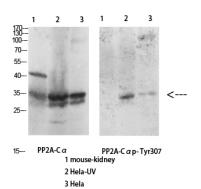
Western blot analysis of lysates from A549 cells, using PP2A-alpha Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using PP2A-Cα Polyclonal Antibody diluted at 1: 2000



Western Blot analysis of A549 cells using PP2A-Cα Polyclonal Antibody diluted at 1 : 2000



Western Blot analysis of various cells using Antibody diluted at 1:1000. Secondary antibody was diluted at 1:20000