

# Human PP2C alpha/PPM1A antibody

Catalog Number: APP0401

## PRODUCT INFORMATION

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**Catalog number**

APP0401

**Clone No.**

p6c7

**Product type**

Monoclonal Antibody

**UnitProt No.**

P35813

**NCBI Accession No.**

NP\_066283

**Alternative Names**

Pyruvate dehydrogenase phosphatase catalytic subunit 1, Pyruvate dehydrogenase acetyl-transferring-phosphatase 1, Protein phosphatase Mg<sup>2+</sup>/Mn<sup>2+</sup>-dependent 1A, Protein phosphatase 2C, Protein phosphatase 1A (formerly 2C) magnesium-dependent alpha isoform, Protein phosphatase 1A (formerly 2C), PPM2C, PPM1A, PP2CA, PP2C alpha, PDPC 1, PDP 1, PDP, MGC9201, FLJ42306, EC 3.1.3.43

## PRODUCT SPECIFICATION

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**Antibody Host**

Mouse

**Reacts With**

Human

**Concentration**

1mg/ml (determined by BCA assay)

**Formulation**

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

**Immunogen**

Recombinant human PP2Calpha (1-382aa) purified from E. coli

**Isotype**

IgG2b kappa

**Purification Note**

By protein-G affinity chromatography

**Application**

ELISA, WB, ICC/IF

**Usage**

The antibody has been tested by ELISA, Western blot and ICC/IF analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

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## Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

### Description

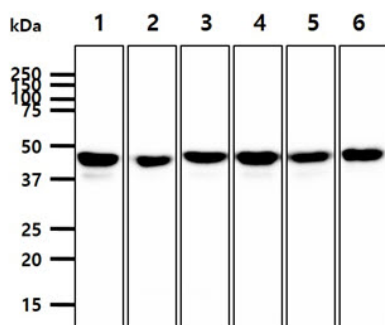
Protein phosphatase 2C (PP2C $\alpha$ ) is a Mn<sup>2+</sup> - or Mg<sup>2+</sup> -dependent protein serine/threonine phosphatase that inhibits the human stress-responsive p38 and JNk MAPk pathways and regulates cellular stress response in eukaryotes. The PPM (metal-dependent protein phosphatase) family of Ser/Thr protein phosphatases have recently been shown to down-regulate the stress response pathways in eukaryotes. Within the stress pathway, key signaling kinases, which are activated by protein phosphorylation, have been proposed as the in vivo substrates of PP2C $\alpha$ , the prototypical member of the PPM family.

### General References

Lin X, et al., (2006) Cell. 125(5): 915-928  
 Duan X, et al., (2006) J Biol Chem. 281(48):36526-32

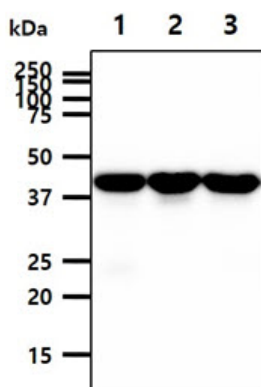
## DATA

### Western blot analysis (WB)



The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human PP2C alpha antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: Jurkat cell lysate  
 Lane 2.: HeLa cell lysate  
 Lane 3.: K562 cell lysate  
 Lane 4.: MCF7 cell lysate  
 Lane 5.: A549 cell lysate  
 Lane 6.: Raji cell lysate



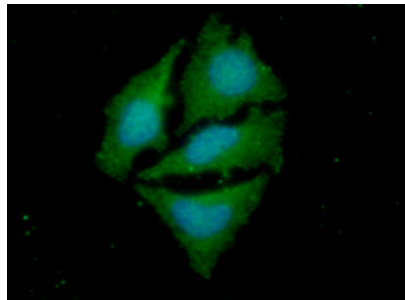
The tissue lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human PP2C alpha antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: Mouse kidney tissue lysate  
 Lane 2.: Mouse brain tissue lysate  
 Lane 3.: Mouse liver tissue lysate

### Immunocytochemistry/Immunofluorescence (ICC/IF)

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ICC/IF analysis of PP2C alpha in HeLa cells. The cell was stained with APP0401 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).