Human PP2C alpha/PPM1A antibody

Catalog Number: APP0401

PRODUCT INFORMATION

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 Mg2+/Mn2+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

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 obtainoptimal 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

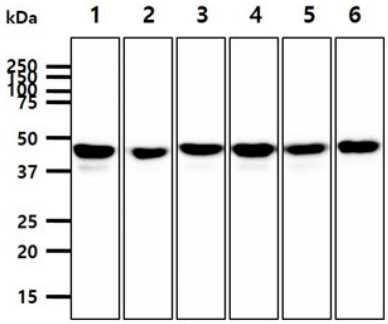
Protein phosphatase 2C (PP2Calpha) is a Mn2+ - or Mg 2+ -dependent protein serine/threonine phosphatase that inhibits the human stress-responsive p38 and JNk MAPk pathways and regulates cellular stress response in eukaryotes. The PPM (metal-dependent protein phosphatase) family of Ser/Thr protein phosphatases 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 PP2Calpha, the prototypical member of the PPM family.

General References

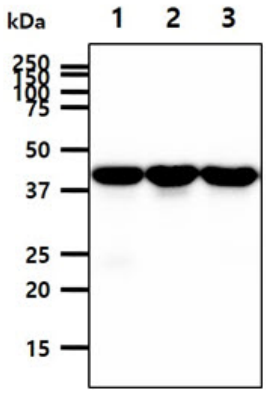
Lin X, et al., (2006) Cell. 125(5): 915-928
Duan X, et al., (2006) J Biol Chem. 281(48):36526-32

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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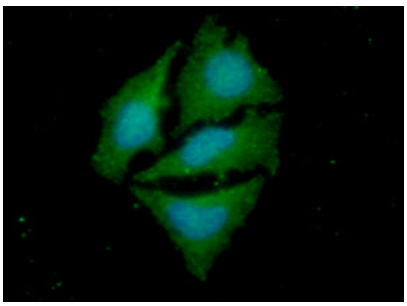

ICC/IF analysis of PP2C alpha in HeLa cells. The cell was stained with APP0401 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).