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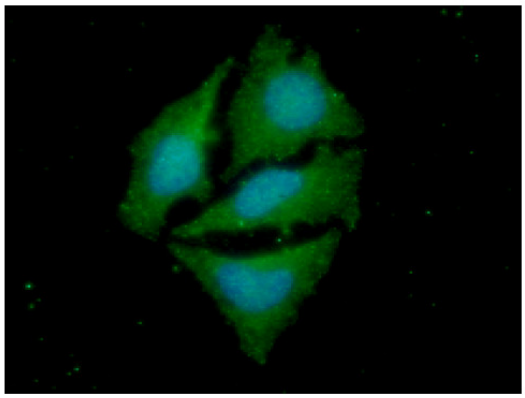
SM6005S Monoclonal Antibody to Protein phosphatase 1A / PPM1A - Purified

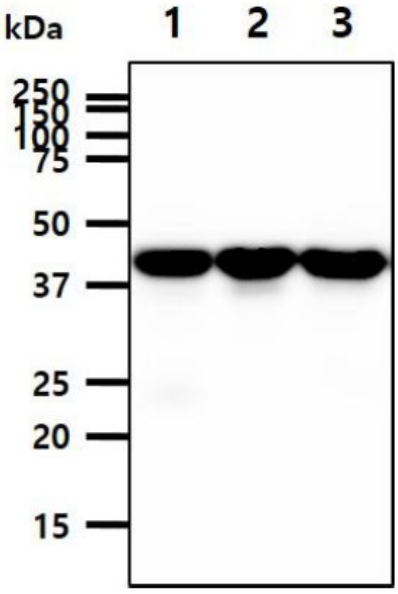
Alternate names:	PP2C-alpha, PPPM1A, Protein phosphatase 2C isoform alpha, Protein phosphatase IA
Quantity:	50 µl
Concentration:	1.0 mg/ml
Background:	Protein phosphatase 2C(PP2Cα) is a Mn2+- or Mg2+-dependent protein serine/threonine phosphatase that inhibits the human stress-responsive p38 and JNK 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, the prototypical member of the PPM family.
Uniprot ID:	P35813
NCBI:	NP_066283.1
GeneID:	5494
Host / Isotype:	Mouse / IgG2b
Recommended Isotype Controls:	SM12P, AM03110PU-N
Clone:	p6c7
Immunogen:	Recombinant Human PP2C-alpha protein
Format:	**State:** Liquid purified Ig fraction. **Purification:** Protein-G affinity chromatography **Buffer System:** PBS, pH 7.4 containing 0.02% Sodium Azide and 10% Glycerol
Applications:	**ELISA.** **Western blot:** 1/250~1/1000 (1/250 as starting dilution). **Immunofluorescence/Immnunocytochemistry.** **Immunohistochemistry on Paraffin Sections:** 15 µg/ml. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody detects Protein Phosphatase 2C alpha (PP2C alpha). **Species:** Human and Mouse. Other species not tested.
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
General Readings:	1. Takekawa M., et al (1998) EMBO J. 17: 4744-52. 2. Fjeld C., et al (1999) J Biol Chem. 274: 20336-43. 3. Das, A. K. et al. (1996) EMBO J. 15: 6798-6809.

Pictures:

Immunofluorescence: ICC/IF analysis of PP2C alpha in HeLa cells. The cell was stained with SM6005 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).



Western Blot Analysis: 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.



Western Blot Analysis: 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.