

**PP2B-A $\alpha$  Monoclonal Antibody**

<b>Catalog No :</b>	YM1080
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	WB
<b>Target :</b>	PP2B-A $\alpha$
<b>Fields :</b>	>>MAPK signaling pathway;>>Calcium signaling pathway;>>cGMP-PKG signaling pathway;>>Oocyte meiosis;>>Cellular senescence;>>Wnt signaling pathway;>>Axon guidance;>>VEGF signaling pathway;>>Osteoclast differentiation;>>C-type lectin receptor signaling pathway;>>Natural killer cell mediated cytotoxicity;>>Th1 and Th2 cell differentiation;>>Th17 cell differentiation;>>T cell receptor signaling pathway;>>B cell receptor signaling pathway;>>Long-term potentiation;>>Glutamatergic synapse;>>Dopaminergic synapse;>>Oxytocin signaling pathway;>>Glucagon signaling pathway;>>Renin secretion;>>Alzheimer disease;>>Amyotrophic lateral sclerosis;>>Prion disease;>>Pathways of neurodegeneration - multiple diseases;>>Amphetamine addiction;>>Tuberculosis;>>Human cytomegalovirus infection;>>Human T-cell leukemia virus 1 infection;>>Kaposi sarcoma-associated herpesvirus infection;>>Human immunodeficiency virus 1 infection;>>PD-L1 expression and PD-1 checkpoint pathway in cancer;>>Lipid and atherosclerosis
<b>Gene Name :</b>	PPP3CA
<b>Protein Name :</b>	Serine/threonine-protein phosphatase 2B catalytic subunit alpha isoform
<b>Human Gene Id :</b>	5530
<b>Human Swiss Prot No :</b>	Q08209
<b>Mouse Gene Id :</b>	19055
<b>Mouse Swiss Prot No :</b>	P63328
<b>Rat Gene Id :</b>	24674
<b>Rat Swiss Prot No :</b>	P63329

<b>Immunogen :</b>	<u>Purified recombinant human PP2B-A<math>\alpha</math> protein fragments expressed in E.coli.</u>
<b>Specificity :</b>	<u>PP2B-A<math>\alpha</math> Monoclonal Antibody detects endogenous levels of PP2B-A<math>\alpha</math> protein.</u>
<b>Formulation :</b>	<u>Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.</u>
<b>Source :</b>	<u>Monoclonal, Mouse</u>
<b>Dilution :</b>	<u>WB 1:1000 - 1:2000. Not yet tested in other applications.</u>
<b>Purification :</b>	<u>Affinity purification</u>
<b>Concentration :</b>	<u>1 mg/ml</u>
<b>Storage Stability :</b>	<u>-15°C to -25°C/1 year(Do not lower than -25°C)</u>
<b>Molecularweight :</b>	<u>59kD</u>
<b>Cell Pathway :</b>	<u>MAPK_ERK_Growth;MAPK_G_Protein;Calcium;Oocyte meiosis;Apoptosis_Inhibition;Apoptosis_Mitochondrial;Apoptosis_Overview;WNT;WNT-T CELLAxon guidance;VEGF;Natural killer cell mediated cytotoxicity;T_Cell_</u>
<b>Background :</b>	<u>catalytic activity:A phosphoprotein + H(2)O = a protein + phosphate.,cofactor:Binds 1 Fe(3+) ion per subunit.,cofactor:Binds 1 zinc ion per subunit.,function:Calcium-dependent, calmodulin-stimulated protein phosphatase. This subunit may have a role in the calmodulin activation of calcineurin. Dephosphorylates HSPB1 and SSH1.,online information:Calcineurin entry,similarity:Belongs to the PPP phosphatase family.,similarity:Belongs to the PPP phosphatase family. PP-2B subfamily.,subcellular location:Colocalizes with ACTN1 and MYOZ2 at the Z line in heart and skeletal muscle.,subunit:Composed of two components (A and B), the A component is the catalytic subunit and the B component confers calcium sensitivity. Interacts with TORC2/CRTC2, MYOZ1, MYOZ2 and MYOZ3.,</u>
<b>Function :</b>	<u>catalytic activity:A phosphoprotein + H(2)O = a protein + phosphate.,cofactor:Binds 1 Fe(3+) ion per subunit.,cofactor:Binds 1 zinc ion per subunit.,function:Calcium-dependent, calmodulin-stimulated protein phosphatase. This subunit may have a role in the calmodulin activation of calcineurin. Dephosphorylates HSPB1 and SSH1.,online information:Calcineurin entry,similarity:Belongs to the PPP phosphatase family.,similarity:Belongs to the PPP phosphatase family. PP-2B subfamily.,subcellular location:Colocalizes with ACTN1 and MYOZ2 at the Z line in heart and skeletal muscle.,subunit:Composed of two components (A and B), the A component is the catalytic subunit and the B component confers calcium sensitivity. Interacts with TORC2/CRTC2, MYOZ1, MYOZ2 and MYOZ3.,</u>

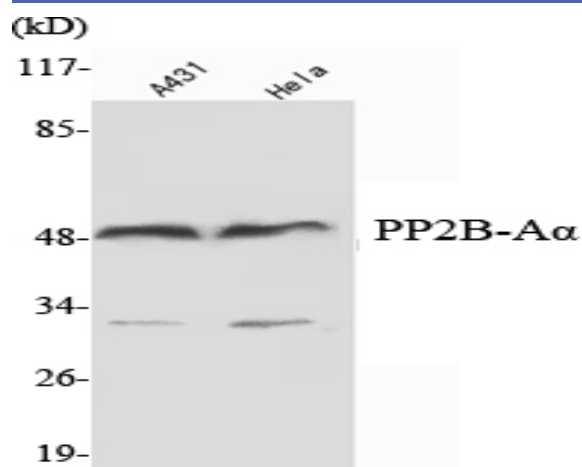
**Subcellular Location :**

Cytoplasm . Cell membrane ; Peripheral membrane protein . Cell membrane, sarcolemma . Cytoplasm, myofibril, sarcomere, Z line . Cell projection, dendritic spine . Colocalizes with ACTN1 and MYOZ2 at the Z line in heart and skeletal muscle (By similarity). Recruited to the cell membrane by scaffold protein AKAP5 following L-type Ca(2+)-channel activation (PubMed:22343722). .

**Expression :**

Expressed in keratinocytes (at protein level) (PubMed:29043977). Expressed in lymphoblasts (at protein level) (PubMed:30254215).

## Products Images



Western Blot analysis using PP2B-A $\alpha$  Monoclonal Antibody against A431, HeLa cell lysate .