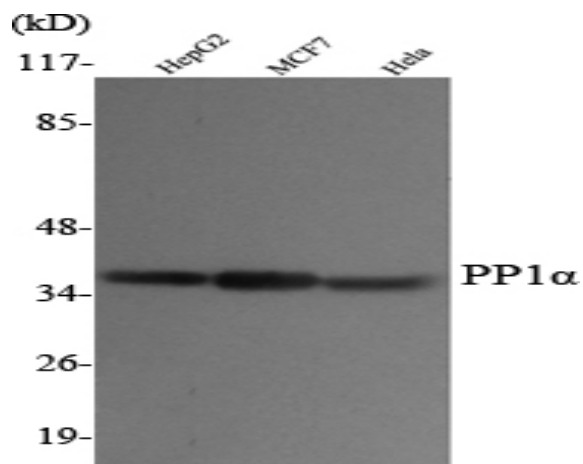


PP1 α Monoclonal Antibody

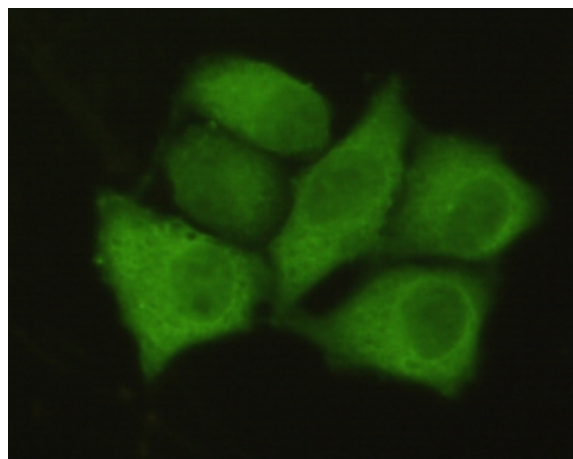
Catalog No :	YM1077
Reactivity :	Human;Mouse;Rat;Bovine;Chicken;Pig;Rabbit;Zebrafish
Applications :	WB;IF
Target :	PP1 α
Fields :	>>mRNA surveillance pathway;>>cGMP-PKG signaling pathway;>>cAMP signaling pathway;>>Oocyte meiosis;>>Cellular senescence;>>Adrenergic signaling in cardiomyocytes;>>Vascular smooth muscle contraction;>>Hippo signaling pathway;>>Focal adhesion;>>Platelet activation;>>Long-term potentiation;>>Dopaminergic synapse;>>Inflammatory mediator regulation of TRP channels;>>Regulation of actin cytoskeleton;>>Insulin signaling pathway;>>Oxytocin signaling pathway;>>Insulin resistance;>>Amphetamine addiction;>>Alcoholism;>>Herpes simplex virus 1 infection;>>Proteoglycans in cancer;>>Diabetic cardiomyopathy
Gene Name :	PPP1CA
Protein Name :	Serine/threonine-protein phosphatase PP1-alpha catalytic subunit
Human Gene Id :	5499
Human Swiss Prot No :	P62136
Mouse Gene Id :	19045
Mouse Swiss Prot No :	P62137
Rat Gene Id :	24668
Rat Swiss Prot No :	P62138
Immunogen :	Purified recombinant human PP1 α (N-terminus) protein fragments expressed in E.coli.
Specificity :	PP1 α Monoclonal Antibody detects endogenous levels of PP1 α protein.

Formulation :	<u>Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.</u>
Source :	<u>Monoclonal, Mouse</u>
Dilution :	<u>WB 1:1000 - 1:2000. IF 1:100 - 1:500. Not yet tested in other applications.</u>
Purification :	<u>Affinity purification</u>
Concentration :	<u>1 mg/ml</u>
Storage Stability :	<u>-15°C to -25°C/1 year(Do not lower than -25°C)</u>
Molecularweight :	<u>38kD</u>
Cell Pathway :	<u>Oocyte meiosis;Vascular smooth muscle contraction;Focal adhesion;Long-term potentiation;Regulates Actin and Cytoskeleton;Insulin_Receptor;</u>
Background :	<u>The protein encoded by this gene is one of the three catalytic subunits of protein phosphatase 1 (PP1). PP1 is a serine/threonine specific protein phosphatase known to be involved in the regulation of a variety of cellular processes, such as cell division, glycogen metabolism, muscle contractility, protein synthesis, and HIV-1 viral transcription. Increased PP1 activity has been observed in the end stage of heart failure. Studies in both human and mice suggest that PP1 is an important regulator of cardiac function. Mouse studies also suggest that PP1 functions as a suppressor of learning and memory. Three alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008],</u>
Function :	<u>catalytic activity:A phosphoprotein + H(2)O = a protein + phosphate.,caution:The sequence shown here is derived from an Ensembl automatic analysis pipeline and should be considered as preliminary data.,cofactor:Binds 1 iron ion per subunit.,cofactor:Binds 1 manganese ion per subunit.,enzyme regulation:The phosphatase activity of the PPP1R15A-PP1 complex toward EIF2S1 is specifically inhibited by Salubrinal, a drug that protects cells from endoplasmic reticulum stress.,function:Protein phosphatase 1 (PP1) is essential for cell division, and participates in the regulation of glycogen metabolism, muscle contractility and protein synthesis. Involved in regulation of ionic conductances and long-term synaptic plasticity. May play an important role in dephosphorylating substrates such as the postsynaptic density-associated Ca(2+)/calmodulin dependent protein kinase II.,online information:The th</u>
Subcellular Location :	<u>Cytoplasm . Nucleus . Nucleus, nucleoplasm . Nucleus, nucleolus . Primarily nuclear and largely excluded from the nucleolus. Highly mobile in cells and can be relocalized through interaction with targeting subunits. NOM1 plays a role in targeting this protein to the nucleolus. In the presence of PPP1R8 relocalizes from the nucleus to nuclear speckles. Shuttles toward the cytosol during infection with VEEV (PubMed:29769351). .</u>

Products Images



Western Blot analysis using PP1 α Monoclonal Antibody against HepG2, MCF7, HeLa cell lysate.



Immunofluorescence analysis of HeLa cells using PP1 α Monoclonal Antibody.