

PP1α Monoclonal Antibody

Catalog No: YM1077

Reactivity: Human; Mouse; Rat; Bovine; Chicken; Pig; Rabbit; Zebrafish

Applications: WB;IF

Target: PP1a

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:

Mouse Gene Id: 19045

Mouse Swiss Prot

No:

Rat Gene ld: 24668

Rat Swiss Prot No: P62138

Immunogen: Purified recombinant human PP1α (N-terminus) protein fragments expressed in

E.coli.

P62136

P62137

Specificity: PP1a Monoclonal Antibody detects endogenous levels of PP1a protein.



Formulation: Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Monoclonal, Mouse

Dilution: WB 1:1000 - 1:2000. IF 1:100 - 1:500. Not yet tested in other applications.

Purification : Affinity purification

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight: 38kD

Cell Pathway: Oocyte meiosis; Vascular smooth muscle contraction; Focal adhesion; Long-term

potentiation; Regulates Actin and Cytoskeleton; Insulin_Receptor;

Background: 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],

Function: 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

Subcellular Location:

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)...

Expression : Colon carcinoma, Liver, Lung, Muscle, Pancreas, Placenta, Platele

Tag: hot

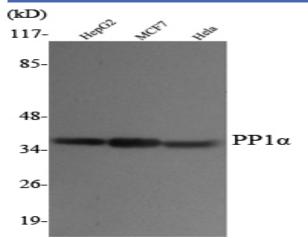
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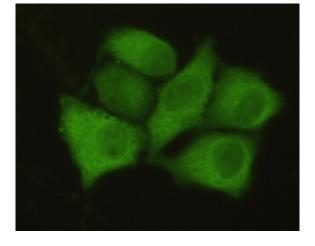
Host: Mouse

Modifications: Unmodified

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.