

PP1β Monoclonal Antibody

Catalog No: YM1078

Reactivity: Human; Mouse; Rat; Chicken; Dog; Pig

Applications: WB

Target: PP1β

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: PPP1CB

Protein Name: Serine/threonine-protein phosphatase PP1-beta catalytic subunit

Human Gene Id: 5500

Human Swiss Prot

No:

Mouse Gene Id: 19046

P62140

P62141

Mouse Swiss Prot

No:

Rat Gene Id: 25594

Rat Swiss Prot No: P62142

Immunogen : Purified recombinant human PP1β protein fragments expressed in E.coli.

Specificity: PP1β Monoclonal Antibody detects endogenous levels of PP1β protein.

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

Soumdation: Monoclonal, Mouse

Dilution: WB 1:1000 - 1:2000. 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: 37kD

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

potentiation; Regulates Actin and Cytoskeleton; Insulin_Receptor; Progesterone-

mediated oocyte maturation;

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. Mouse studies suggest that PP1 functions as a

suppressor of learning and memory. Two alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2008],

Function : catalytic activity: A phosphoprotein + H(2)O = a protein +

phosphate.,cofactor:Binds 1 iron ion per subunit.,cofactor:Binds 1 manganese ion

per subunit.,domain:The C-terminus is required for CDK2-activation, but not CDK2-binding.,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 (PP1) is essential for cell division, it participates in the regulation of glycogen metabolism, muscle contractility and protein synthesis. Involved in regulation of ionic conductances and long-term synaptic plasticity.,function:Regulates the G1/S phase transition of the cell cycle by binding and activating CDC2, CDK2 and

Mediates cell survival during the DNA damage process throug

Subcellular Location:

Cytoplasm . Nucleus . Nucleus, nucleoplasm . Nucleus, nucleolus . Highly mobile

CDKN1B/KIP1. Can activate CDK2 without promoting CDK2 phosphorylation.

in cells and can be relocalized through interaction with targeting subunits. In the

presence of PPP1R8 relocalizes from the nucleus to nuclear speckles. .

Expression: Epithelium, Platelet, Testis, Umbilical vein, Uterus,

Sort: 12922

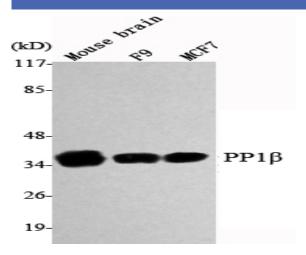
No4: 1



Host: Mouse

Modifications: Unmodified

Products Images



Western Blot analysis using PP1 β Monoclonal Antibody against Mouse brain, F9, MCF7 cell lysate.