

## PP1 $\beta$ Monoclonal Antibody

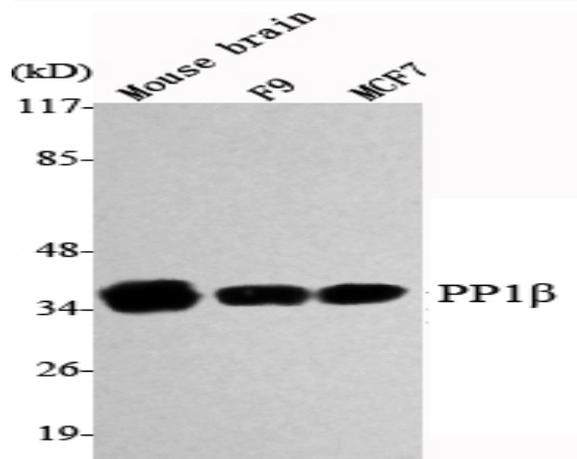
<b>Catalog No :</b>	YM1078
<b>Reactivity :</b>	Human;Mouse;Rat;Chicken;Dog;Pig
<b>Applications :</b>	WB
<b>Target :</b>	PP1 $\beta$
<b>Fields :</b>	>>mRNA surveillance pathway;>>cGMP-PKG signaling pathway;>>cAMP signaling pathway;>>Oocyte meiosis;>>Cellular senescence;>>Adrenergic signaling in cardiomyocytes;>>Vascular 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
<b>Gene Name :</b>	PPP1CB
<b>Protein Name :</b>	Serine/threonine-protein phosphatase PP1-beta catalytic subunit
<b>Human Gene Id :</b>	5500
<b>Human Swiss Prot No :</b>	P62140
<b>Mouse Gene Id :</b>	19046
<b>Mouse Swiss Prot No :</b>	P62141
<b>Rat Gene Id :</b>	25594
<b>Rat Swiss Prot No :</b>	P62142
<b>Immunogen :</b>	Purified recombinant human PP1 $\beta$ protein fragments expressed in E.coli.
<b>Specificity :</b>	PP1 $\beta$ Monoclonal Antibody detects endogenous levels of PP1 $\beta$ protein.  Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

<b>Formulation :</b>	Monoclonal, Mouse
<b>Dilution :</b>	WB 1:1000 - 1:2000. Not yet tested in other applications.
<b>Purification :</b>	Affinity purification
<b>Concentration :</b>	1 mg/ml
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Molecularweight :</b>	37kD
<b>Cell Pathway :</b>	Oocyte meiosis;Vascular smooth muscle contraction;Focal adhesion;Long-term potentiation;Regulates Actin and Cytoskeleton;Insulin_Receptor;Progesterone-mediated oocyte maturation;
<b>Background :</b>	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],
<b>Function :</b>	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 CDKN1B/KIP1. Can activate CDK2 without promoting CDK2 phosphorylation. Mediates cell survival during the DNA damage process through
<b>Subcellular Location :</b>	Cytoplasm . Nucleus . Nucleus, nucleoplasm . Nucleus, nucleolus . Highly mobile in cells and can be relocalized through interaction with targeting subunits. In the presence of PPP1R8 relocalizes from the nucleus to nuclear speckles. .
<b>Expression :</b>	Epithelium,Platelet,Testis,Umbilical vein,Uterus,
<b>Sort :</b>	12922
<b>No4 :</b>	1

**Host :** Mouse

**Modifications :** Unmodified

## Products Images



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