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Catalog No: YM1267

Reactivity: Human

**Applications:** WB

Target: PP1C

**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: ppp1cc

Human Gene Id: 5501

**Human Swiss Prot** P36873

No:

**Mouse Swiss Prot** 

No:

**Immunogen:** Purified recombinant human PP1C protein fragments expressed in E.coli.

**Specificity:** This antibody detects endogenous levels of PP1C and does not cross-react with

related proteins.

P63087

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

Source: Monoclonal, Mouse

**Dilution:** wb 1:500

**Purification:** The antibody was affinity-purified from mouse ascites by affinity-

chromatography using epitope-specific immunogen.



Concentration: 1 mg/ml

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

Observed Band: 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 belongs to the protein phosphatase family,

PP1 subfamily. PP1 is an ubiquitous serine/threonine phosphatase that regulates many cellular processes, including cell division. It is expressed in mammalian cells as three closely related isoforms, alpha, beta/delta and gamma, which have

distinct localization patterns. This gene encodes the gamma isozyme.

Alternatively spliced transcript variants encoding different isoforms have been

found for this gene. [provided by RefSeq, Oct 2011],

**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.,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.,miscellaneous:Microcystin toxin is bound to Cys-273 through a thioether bond.,online information:The things we

forget -Issue 32 of March 2003, similarity: Belon

Subcellular Location:

Cytoplasm . Nucleus. Nucleus, nucleolus . Nucleus, nucleoplasm . Nucleus speckle . Chromosome, centromere, kinetochore . Cleavage furrow . Midbody . Mitochondrion . Cytoplasm, cytoskeleton, microtubule organizing center .

Colocalizes with SPZ1 in the nucleus (By similarity). Colocalizes with URI1 at mitochondrion (PubMed:17936702). Rapidly exchanges between the nucleolar, nucleoplasmic and cytoplasmic compartments (PubMed:11739654). Highly mobile in cells and can be relocalized through interaction with targeting subunits (PubMed:17965019). In the presence of PPP1R8 relocalizes from the nucleolus to nuclear speckles (PubMed:11739654). Shows a dynamic targeting to specific sites throughout the cell cycle (PubMed:12529430). Highly concentrated in

nucleoli of interphase cells and localizes at

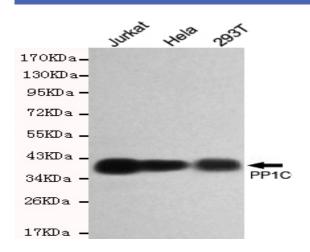
**Expression:** Embryonic kidney, Placenta, Skeletal muscle,

**Sort :** 12916

No4:



## **Products Images**



Western blot detection of PP1C in Hela,293T and Jurkat cell lysates using PP1C mouse mAb (1:500 diluted). Predicted band size:38KDa. Observed band size:38KDa.