

## PP1 $\beta$ Mouse mAb

CatalogNo: YM1078

### | Key Features

#### Host Species

- Mouse

#### Reactivity

- Human, Mouse, Rat, Chicken, Dog, Pig

#### Applications

- WB

#### MW

- 37kD (Calculated)

### | Recommended Dilution Ratios

**WB 1:1000-1:2000**

**Not yet tested in other applications.**

### | Storage

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

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

### | Basic Information

**Clonality** Monoclonal

**Clone Number** 2C9

### | Immunogen Information

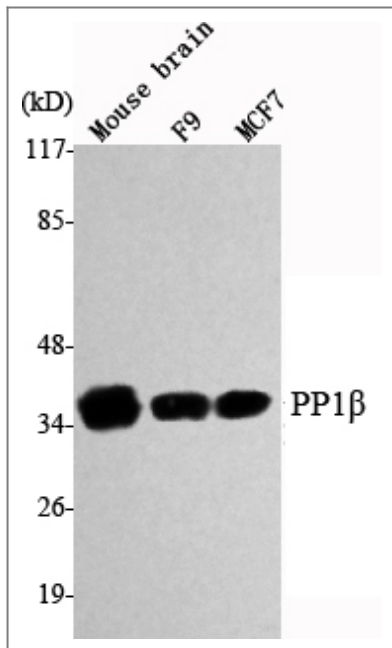
**Immunogen** Purified recombinant human PP1 $\beta$  protein fragments expressed in E.coli.

**Specificity** PP1 $\beta$  Monoclonal Antibody detects endogenous levels of PP1 $\beta$  protein.

### | Target Information

Gene name	PPP1CB		
Protein Name	Serine/threonine-protein phosphatase PP1-beta catalytic subunit		
	Organism	Gene ID	UniProt ID
	Human	<a href="#">5500</a> ;	<a href="#">P62140</a> ;
	Mouse	<a href="#">19046</a> ;	<a href="#">P62141</a> ;
	Rat	<a href="#">25594</a> ;	<a href="#">P62142</a> ;
Cellular Localization	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. .		
Tissue specificity	Epithelium,Platelet,Testis,Umbilical vein,Uterus,		
Function	<p>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 activation of CDK2.,online information:The things we forget -Issue 32 of March 2003,similarity:Belongs to the PPP phosphatase family. PP-1 subfamily.,similarity:Belongs to the Speedy/Ringo family.,subunit:Interacts with CDC2, CDK2 and CDKN1B/KIP1. Found in a complex with both CDK2 and CDKN1B/KIP1.,subunit:PP1 comprises a catalytic subunit, PPP1CA, PPP1CB or PPP1CC, which is folded into its native form by inhibitor 2 and glycogen synthetase kinase 3, and then complexed to one or several targeting or regulatory subunits. PPP1R12A, PPP1R12B and PPP1R12C mediate binding to myosin. PPP1R3A, PPP1R3B, PPP1R3C and PPP1R3D mediate binding to glycogen. Part of a complex containing PPP1R15B, PP1 and NCK1/2 (By similarity). Interacts with PPP1R7 and PPP1R12C. PPP1R15A and PPP1R15B mediate binding to EIF2S1.,tissue specificity:Highly expressed in testis. Expressed at a low level in wide range of tissues including bone marrow, brain, heart, kidney, colon, liver, placenta, spleen, skeletal muscle, salivary gland, thyroid gland, thymus, trachea and uterus. Expressed at a slightly higher level in adrenal gland, cerebellum, small intestine, lung, prostate and trachea. Expression is cell cycle-dependent, being restricted to cells in G1/S phase.,</p>		

| Validation Data



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

## Contact information

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Please scan the QR code to access additional product information:  
**PP1 $\beta$  Mouse mAb**

For Research Use Only. Not for Use in Diagnostic Procedures.

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