

# PPP1CB Rabbit mAb

Catalog # AP75940

## Product Information

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<b>Application</b>	WB, IHC-P, IHC-F, FC, IP
<b>Primary Accession</b>	<a href="#">P62140</a>
<b>Reactivity</b>	Rat, Human, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Monoclonal Antibody
<b>Isotype</b>	IgG
<b>Conjugate</b>	Unconjugated
<b>Purification</b>	Affinity Purified
<b>Calculated MW</b>	37187

## Additional Information

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<b>Gene ID</b>	5500
<b>Other Names</b>	PPP1CB
<b>Dilution</b>	WB~~1:1000-1:5000 IHC-P~~N/A IHC-F~~N/A FC~~1:20-1:50 IP~~1:50-1:100
<b>Format</b>	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

## Protein Information

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<b>Name</b>	PPP1CB
<b>Function</b>	<p>Protein phosphatase that associates with over 200 regulatory proteins to form highly specific holoenzymes which dephosphorylate hundreds of biological targets. 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. Component of the PTW/PP1 phosphatase complex, which plays a role in the control of chromatin structure and cell cycle progression during the transition from mitosis into interphase. In balance with CSNK1D and CSNK1E, determines the circadian period length, through the regulation of the speed and rhythmicity of PER1 and PER2 phosphorylation. May dephosphorylate CSNK1D and CSNK1E. Dephosphorylates the 'Ser-418' residue of FOXP3 in regulatory T-cells (Treg) from patients with rheumatoid arthritis, thereby inactivating FOXP3 and rendering Treg cells functionally defective (PubMed:<a href="#">23396208</a>). Core component of the SHOC2-MRAS-PP1c (SMP) holophosphatase complex that</p>

regulates the MAPK pathway activation (PubMed:[35768504](#), PubMed:[35831509](#), PubMed:[36175670](#)). The SMP complex specifically dephosphorylates the inhibitory phosphorylation at 'Ser-259' of RAF1 kinase, 'Ser-365' of BRAF kinase and 'Ser-214' of ARAF kinase, stimulating their kinase activities (PubMed:[35768504](#), PubMed:[35831509](#), PubMed:[36175670](#)). The SMP complex enhances the dephosphorylation activity and substrate specificity of PP1c (PubMed:[35768504](#), PubMed:[36175670](#)).

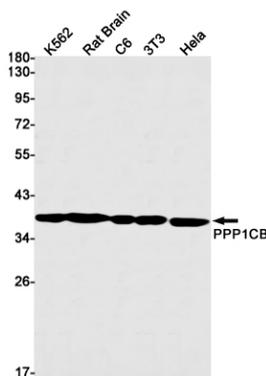
### Cellular Location

Cytoplasm. Nucleus. Nucleus, nucleoplasm. Nucleus, nucleolus. Note=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.

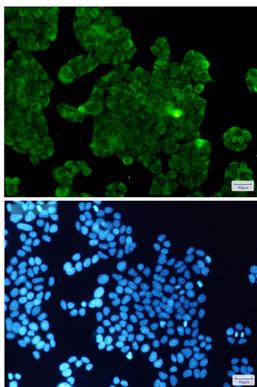
## Background

Protein phosphatase that associates with over 200 regulatory proteins to form highly specific holoenzymes which dephosphorylate hundreds of biological targets. Protein phosphatase (PP1) is essential for cell division, it participates in the regulation of glycogen metabolism, muscle contractility and protein synthesis.

## Images

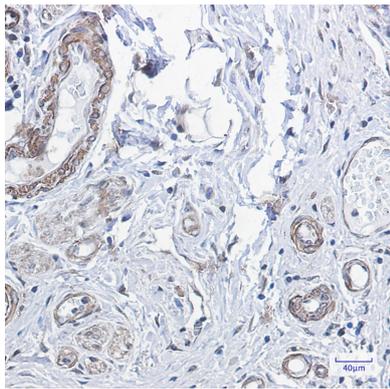
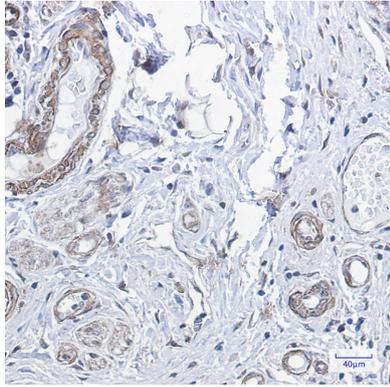
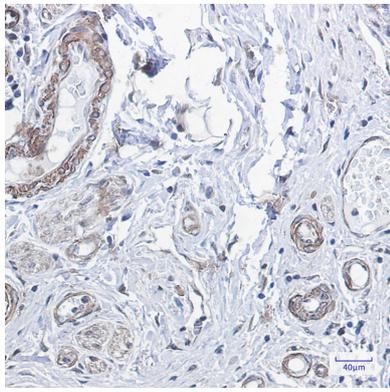


Western blot analysis of PPP1CB in K562, rat Brain, C6, 3T3, HeLa lysates using PP1C beta antibody.



Immunocytochemistry analysis of PPP1CB(green) in HeLa using PPP1CB antibody, and DAPI(blue)

Immunohistochemistry analysis of paraffin-embedded Human colon cancer using PPP1CB antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



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