

# PP1C beta Rabbit mAb

Catalog # AP75940

## Product Information

Application	WB, IHC-P, IHC-F, IP, ICC
Primary Accession	<a href="#">P62140</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	37187

## Additional Information

Gene ID	5500
Other Names	PPP1CB
Dilution	WB~~1/500-1/1000 IHC-P~~N/A IHC-F~~N/A IP~~N/A ICC~~N/A
Format	Liquid

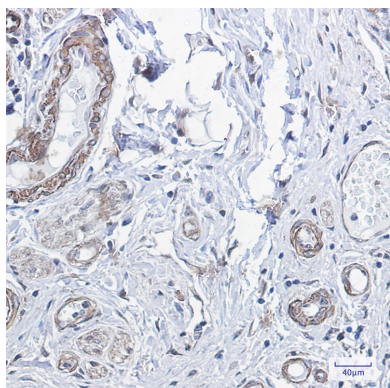
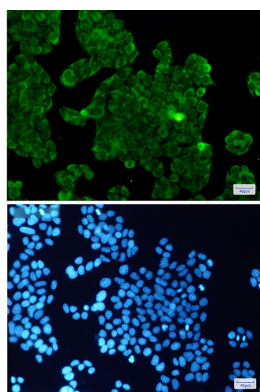
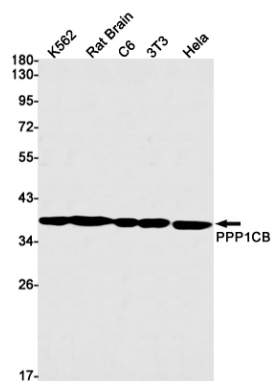
## Protein Information

Name	PPP1CB
Function	<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 regulates the MAPK pathway activation (PubMed:<a href="#">35768504</a>, PubMed:<a href="#">35831509</a>, PubMed:<a href="#">36175670</a>). 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:<a href="#">35768504</a>, PubMed:<a href="#">35831509</a>, PubMed:<a href="#">36175670</a>). The SMP complex enhances the dephosphorylation activity and substrate specificity of PP1c (PubMed:<a href="#">35768504</a>, PubMed:<a href="#">36175670</a>).</p>

## 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.

## Images



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