

Protein Phosphatase 1 beta (PPP1CB) Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8433b

Specification

Protein Phosphatase 1 beta (PPP1CB) Antibody (C-term) - Product Information

Application	WB, IF, E
Primary Accession	P62140
Other Accession	O6GQL2 , P62142 , P62143 , P61292 , P62141 , P62207 , Q3SWW9
Reactivity	Human
Predicted	Bovine, Chicken, Mouse, Pig, Rabbit, Rat, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	37187
Antigen Region	286-315

Protein Phosphatase 1 beta (PPP1CB) Antibody (C-term) - Additional Information

Gene ID 5500

Other Names

Serine/threonine-protein phosphatase PP1-beta catalytic subunit, PP-1B, PPP1CD, PPP1CB

Target/Specificity

This Protein Phosphatase 1 beta (PPP1CB) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 286-315 amino acids from the C-terminal region of human Protein Phosphatase 1 beta (PPP1CB).

Dilution

WB~~1:1000

IF~~1:10~50

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Protein Phosphatase 1 beta (PPP1CB) Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Phosphatase 1 beta (PPP1CB) Antibody (C-term) - Protein Information

Name PPP1CB

Function 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:[23396208](#)). Core component of the SHOC2-MRAS-PP1c (SMP) holophosphatase complex that 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

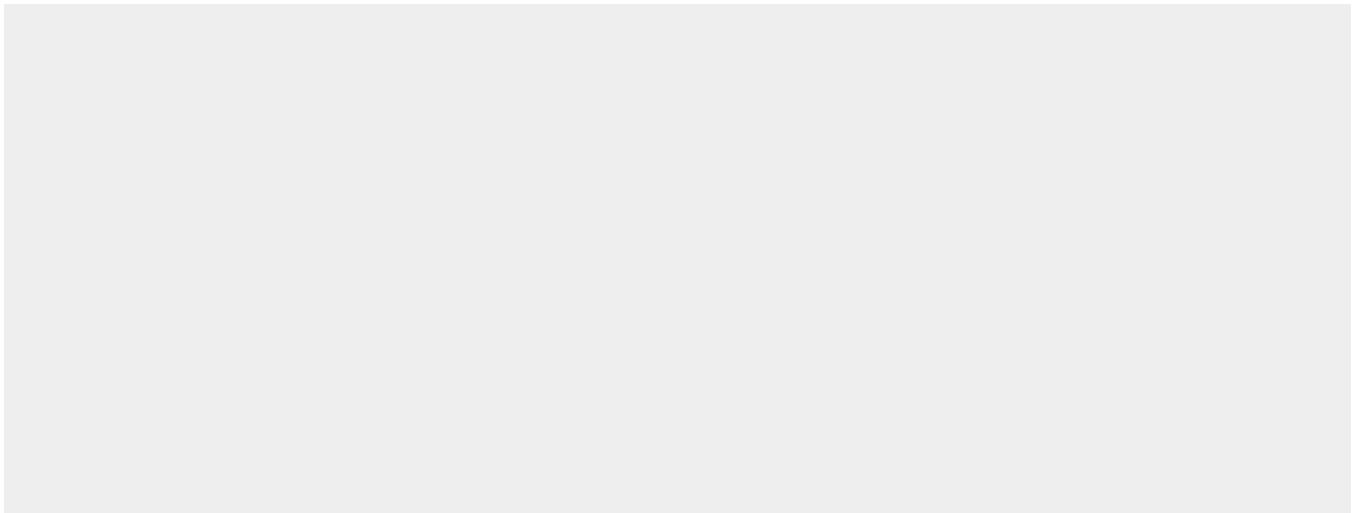
Cytoplasm. Nucleus. Nucleus, nucleoplasm. Nucleus, nucleolus. Note=Highly mobile in cells and can be relocalized through interaction with targeting subunits. In the presence of PPP1R8 relocalizes from the nucleus to nuclear speckles.

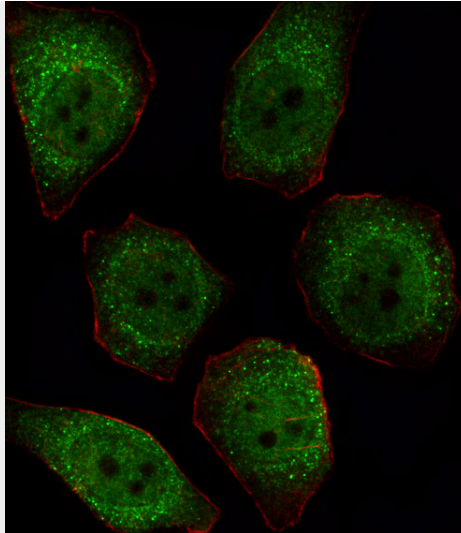
Protein Phosphatase 1 beta (PPP1CB) Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

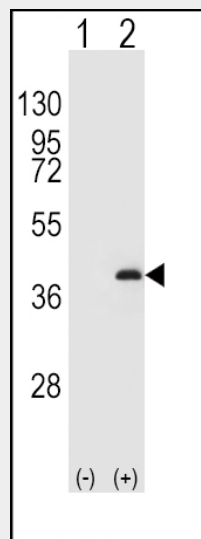
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Protein Phosphatase 1 beta (PPP1CB) Antibody (C-term) - Images





Fluorescent image of U251 cell stained with PPP1CB Antibody (C-term)(Cat#AP8433b).U251 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with PPP1CB primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C).PPP1CB immunoreactivity is localized to Cytoplasm and Nucleus significantly.



Western blot analysis of PPP1CB (arrow) using rabbit polyclonal PPP1CB Antibody (K301) (Cat. #AP8433b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the PPP1CB gene.

Protein Phosphatase 1 beta (PPP1CB) Antibody (C-term) - Background

Protein phosphatase-1 (PP1) is 1 of 4 major serine/threonine-specific protein phosphatases involved in the dephosphorylation of a variety of proteins. These enzymes work in opposition to the protein kinases to control the level of phosphorylation. Protein phosphatase (PP1) is essential for cell division, and it participates in the regulation of glycogen metabolism, muscle contractility and protein synthesis, as well as in regulation of ionic conductances and long-term synaptic plasticity. PP1 has 3 catalytic subunits, designated alpha (PPP1CA), beta (PPP1CB), and gamma (PPP1CC).