

PPP1CB Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP8473a**Specification**

PPP1CB Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [P62140](#)**PPP1CB Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 5500**Other Names**

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

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP8473a](/product/products/AP8473a) was selected from the N-term region of human PPP1CB. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PPP1CB Antibody (N-term) Blocking Peptide - 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: <http://www.uniprot.org/citations/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.

PPP1CB Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

PPP1CB Antibody (N-term) Blocking Peptide - Images

PPP1CB Antibody (N-term) Blocking Peptide - Background

PPP1CB is one of the three catalytic subunits of protein phosphatase 1 (PP1). PP1 is a serine/threonine specific protein phosphatase known to be involved in the regulation of a variety of cellular processes, such as cell division, glycogen metabolism, muscle contractility, protein synthesis, and HIV-1 viral transcription. Mouse studies suggest that PP1 functions as a suppressor of learning and memory.

PPP1CB Antibody (N-term) Blocking Peptide - References

Ammosova, T., et al., J. Biol. Chem. 278(34):32189-32194 (2003).Bharucha, D.C., et al., Virology 296(1):6-16 (2002).Prochazka, M., et al., Diabetologia 38(4):461-466 (1995).Saadat, M., et al., Jpn. J. Genet. 69(6):697-700 (1994).Barker, H.M., et al., Biochim. Biophys. Acta 1220(2):212-218 (1994).