

PPP1A (PPP1CA) Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP8472b**Specification**

PPP1A (PPP1CA) Antibody (C-term) Blocking peptide - Product InformationPrimary Accession [P62136](#)**PPP1A (PPP1CA) Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 5499**Other Names**

Serine/threonine-protein phosphatase PP1-alpha catalytic subunit, PP-1A, PPP1CA, PPP1A

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP8472b](/product/products/AP8472b) was selected from the C-term region of human PPP1CA. 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.

PPP1A (PPP1CA) Antibody (C-term) Blocking peptide - Protein Information**Name** PPP1CA**Synonyms** PPP1A**Function**

Protein phosphatase that associates with over 200 regulatory proteins to form highly specific holoenzymes which dephosphorylate hundreds of biological targets (PubMed:[28216226](http://www.uniprot.org/citations/28216226), PubMed:[30158517](http://www.uniprot.org/citations/30158517), PubMed:[35768504](http://www.uniprot.org/citations/35768504), PubMed:[35830882](http://www.uniprot.org/citations/35830882), PubMed:[35831509](http://www.uniprot.org/citations/35831509), PubMed:[36175670](http://www.uniprot.org/citations/36175670), PubMed:[39603239](http://www.uniprot.org/citations/39603239), PubMed:[39603240](http://www.uniprot.org/citations/39603240)). Protein

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href="http://www.uniprot.org/citations/36175670" target="_blank">36175670). The SMP complex enhances the dephosphorylation activity and substrate specificity of PP1c (PubMed:35768504, PubMed:36175670).

Cellular Location

Cytoplasm. Nucleus, nucleoplasm. Nucleus, nucleolus Note=Primarily nuclear and largely excluded from the nucleolus. Highly mobile in cells and can be relocalized through interaction with targeting subunits. NOM1 plays a role in targeting this protein to the nucleolus. In the presence of PPP1R8 relocalizes from the nucleus to nuclear speckles. Shuttles toward the cytosol during infection with VEEV (PubMed:29769351).

PPP1A (PPP1CA) Antibody (C-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

PPP1A (PPP1CA) Antibody (C-term) Blocking peptide - Images

PPP1A (PPP1CA) Antibody (C-term) Blocking peptide - Background

PPP1CA 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. Increased PP1 activity has been observed in the end stage of heart failure. Studies in both human and mice suggest that PP1 is an important regulator of cardiac function. Mouse studies also suggest that PP1 functions as a suppressor of learning and memory.

PPP1A (PPP1CA) Antibody (C-term) Blocking peptide - References

Okada, T., et al., Int. J. Oncol. 25(5):1383-1388 (2004).Nazarov, I.B., et al., Radiat. Res. 160(3):309-317 (2003).Amosova, T., et al., J. Biol. Chem. 278(34):32189-32194 (2003).Danial, N.N., et al., Nature 424(6951):952-956 (2003).Wang, H., et al., J. Biol. Chem. 277(51):49605-49612 (2002).