

PPP2R1A Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP1943b**Specification**

PPP2R1A Antibody (C-term) Blocking Peptide - Product Information

Primary Accession [P30153](#)
Other Accession [Q96DH3](#)

PPP2R1A Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 5518

Other Names

Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform, Medium tumor antigen-associated 61 kDa protein, PP2A subunit A isoform PR65-alpha, PP2A subunit A isoform R1-alpha, PPP2R1A

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP1943b](/product/products/AP1943b) was selected from the C-term region of human PPP2R1A. 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.

PPP2R1A Antibody (C-term) Blocking Peptide - Protein Information

Name PPP2R1A ([HGNC:9302](#))

Function

The PR65 subunit of protein phosphatase 2A serves as a scaffolding molecule to coordinate the assembly of the catalytic subunit and a variable regulatory B subunit (PubMed:[15525651](http://www.uniprot.org/citations/15525651), PubMed:[16580887](http://www.uniprot.org/citations/16580887), PubMed:[33243860](http://www.uniprot.org/citations/33243860), PubMed:[33633399](http://www.uniprot.org/citations/33633399), PubMed:[34004147](http://www.uniprot.org/citations/34004147), PubMed:[8694763](http://www.uniprot.org/citations/8694763)). Upon interaction with GNA12 promotes dephosphorylation of microtubule associated protein TAU/MAPT

(PubMed:15525651). Required for proper chromosome segregation and for centromeric localization of SGO1 in mitosis (PubMed:16580887). Together with RACK1 adapter, mediates dephosphorylation of AKT1 at 'Ser-473', preventing AKT1 activation and AKT-mTOR signaling pathway (By similarity). Dephosphorylation of AKT1 is essential for regulatory T-cells (Treg) homeostasis and stability (By similarity). Part of the striatin-interacting phosphatase and kinase (STRIPAK) complexes (PubMed:18782753, PubMed:33633399). STRIPAK complexes have critical roles in protein (de)phosphorylation and are regulators of multiple signaling pathways including Hippo, MAPK, nuclear receptor and cytoskeleton remodeling (PubMed:18782753, PubMed:33633399). Different types of STRIPAK complexes are involved in a variety of biological processes such as cell growth, differentiation, apoptosis, metabolism and immune regulation (PubMed:18782753, PubMed:33633399). Key mediator of a quality checkpoint during transcription elongation as part of the Integrator-PP2A (INTAC) complex (PubMed:33243860, PubMed:34004147). The INTAC complex drives premature transcription termination of transcripts that are unfavorably configured for transcriptional elongation: within the INTAC complex, acts as a scaffolding subunit for PPP2CA, which catalyzes dephosphorylation of the C-terminal domain (CTD) of Pol II subunit POLR2A/RPB1 and SUPT5H/SPT5, thereby preventing transcriptional elongation (PubMed:33243860, PubMed:34004147). Regulates the recruitment of the SKA complex to kinetochores (PubMed:28982702).

Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:Q32PI5}. Nucleus. Chromosome. Chromosome, centromere. Lateral cell membrane. Cell projection, dendrite. Note=Centromeric localization requires the presence of BUB1 (PubMed:16580887). Recruited to chromatin and transcription pause-release checkpoint via its association with the Integrator complex (PubMed:34004147, PubMed:33243860)

PPP2R1A Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

PPP2R1A Antibody (C-term) Blocking Peptide - Images

PPP2R1A Antibody (C-term) Blocking Peptide - Background

PPP2R1A encodes a constant regulatory subunit of protein phosphatase 2. Protein phosphatase 2 is one of the four major Ser/Thr phosphatases, and it is implicated in the negative control of cell growth and division. It consists of a common heteromeric core enzyme, which is composed of a catalytic subunit and a constant regulatory subunit, that associates with a variety of regulatory subunits. The constant regulatory subunit A serves as a scaffolding molecule to coordinate the assembly of the catalytic subunit and a variable regulatory B subunit. This gene encodes an alpha isoform of the constant regulatory subunit A.