

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

Catalog # BP1943b

### Specification

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

Primary Accession Other Accession

#### <u>P30153</u> <u>Q96DH3</u>

## 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 <a href=/product/products/AP1943b>AP1943b</a> 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:<a href="http://www.uniprot.org/citations/15525651" target="\_blank">15525651</a>, PubMed:<a href="http://www.uniprot.org/citations/16580887" target="\_blank">16580887</a>, PubMed:<a href="http://www.uniprot.org/citations/3243860" target="\_blank">33243860</a>, PubMed:<a href="http://www.uniprot.org/citations/33243860" target="\_blank">33243860</a>, PubMed:<a href="http://www.uniprot.org/citations/33633399" target="\_blank">33633399</a>, PubMed:<a href="http://www.uniprot.org/citations/34004147" target="\_blank">34004147</a>, PubMed:<a href="http://www.uniprot.org/citations/34004147" target="\_blank">34004147</a>, PubMed:<a href="http://www.uniprot.org/citations/34004147" target="\_blank">34004147</a>, PubMed:<a href="http://www.uniprot.org/citations/34004147" target="\_blank">8694763</a>, PubMed:<a href="http://www.uniprot.org/citations/36094763" target="\_blank">8694763</a>, PubMed:<a href="http://www.uniprot.org/citations/36094763" target="\_blank">8694763</a>, PubMed:<a href="http://www.uniprot.org/citations/86094763" target="\_blank">8604763</a>, DubMed:<a href="http://www.uniprot.org/citations/86094763" target="\_blank">86094763</a>, DubMed:<a href="http://www.uniprot.org/citations/86094763" target="\_blank">86094763</a>, PubMed:<a href="http://www.uniprot.org/citations/86094763" target="\_blank">86094763</a>, PubMed:<a href="http://www.uniprot.org/citations/86094763" target="\_blank">86094763</a>, PubMed:<a href="http:/



(PubMed:<a href="http://www.uniprot.org/citations/15525651" target=" blank">15525651</a>). Required for proper chromosome segregation and for centromeric localization of SGO1 in mitosis (PubMed:<a href="http://www.uniprot.org/citations/16580887" target=" blank">16580887</a>). 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 striatininteracting phosphatase and kinase (STRIPAK) complexes (PubMed:<a href="http://www.uniprot.org/citations/18782753" target=" blank">18782753</a>, PubMed:<a href="http://www.uniprot.org/citations/33633399" target=" blank">33633399</a>). 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:<a href="http://www.uniprot.org/citations/18782753" target=" blank">18782753</a>, PubMed:<a href="http://www.uniprot.org/citations/33633399" target=" blank">33633399</a>). Different types of STRIPAK complexes are involved in a variety of biological processes such as cell growth, differentiation, apoptosis, metabolism and immune regulation (PubMed:<a href="http://www.uniprot.org/citations/18782753" target=" blank">18782753</a>, PubMed:<a href="http://www.uniprot.org/citations/33633399" target=" blank">33633399</a>). Key mediator of a quality checkpoint during transcription elongation as part of the Integrator-PP2A (INTAC) complex (PubMed:<a href="http://www.uniprot.org/citations/33243860" target=" blank">33243860</a>, PubMed:<a href="http://www.uniprot.org/citations/34004147" target=" blank">34004147</a>). 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:<a href="http://www.uniprot.org/citations/33243860" target=" blank">33243860</a>, PubMed:<a href="http://www.uniprot.org/citations/34004147" target=" blank">34004147</a>). Regulates the recruitment of the SKA complex to kinetochores (PubMed:<a href="http://www.uniprot.org/citations/28982702" target=" blank">28982702</a>).

### **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.

#### <u>Blocking Peptides</u>

## 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.