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PP2A alpha Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP8462b

Specification

PP2A alpha Antibody (C-term) Blocking peptide - Product Information

Primary Accession P67775

PP2A alpha Antibody (C-term) Blocking peptide - Additional Information

Gene ID 5515

Other Names
Serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform, PP2A-alpha, Replication protein C, RP-C, PPP2CA

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8462b was selected from the C-term region of human PPP2CA/B. 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.

PP2A alpha Antibody (C-term) Blocking peptide - Protein Information

Name PPP2CA

Function
PP2A is the major phosphatase for microtubule-associated proteins (MAPs) (PubMed:22613722). PP2A can modulate the activity of phosphorylase B kinase casein kinase 2, mitogen-stimulated S6 kinase, and MAP-2 kinase (PubMed:22613722). Cooperates with SGO2 to protect centromeric cohesin from separase-mediated cleavage in oocytes specifically during meiosis I (By similarity). Can dephosphorylate SV40 large T antigen and p53/TP53 (PubMed:17245430). Activates RAF1 by dephosphorylating it at 'Ser-259' (PubMed:10801873). Mediates dephosphorylation of WEE1, preventing its ubiquitin-mediated proteolysis, increasing WEE1

protein levels, and promoting the G2/M checkpoint (PubMed:33108758). Mediates dephosphorylation of MYC; promoting its ubiquitin-mediated proteolysis: interaction with AMBRA1 enhances interaction between PPP2CA and MYC (PubMed:25438055). Mediates dephosphorylation of FOXO3; promoting its stabilization: interaction with AMBRA1 enhances interaction between PPP2CA and FOXO3 (PubMed:30513302). Catalyzes dephosphorylation of the pyrin domain of NLRP3, promoting assembly of the NLRP3 inflammasome (By similarity).

Cellular Location
Cytoplasm. Nucleus. Chromosome, centromere. Cytoplasm, cytoskeleton, spindle pole. Note=In prometaphase cells, but not in anaphase cells, localizes at centromeres (PubMed:16541025). During mitosis, also found at spindle poles (PubMed:16541025). Centromeric localization requires the presence of SGO2 (By similarity) {ECO:0000250|UniProtKB:P63330, ECO:0000269|PubMed:16541025}

PP2A alpha Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

PP2A alpha Antibody (C-term) Blocking peptide - Images

PP2A alpha Antibody (C-term) Blocking peptide - Background

PPP2CA/B represents the phosphatase 2A catalytic subunit. Protein phosphatase 2A 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.

PP2A alpha Antibody (C-term) Blocking peptide - References

Gergs, U., et al., J. Biol. Chem. 279(39):40827-40834 (2004).Prickett, T.D., et al., J. Biol. Chem. 279(37):38912-38920 (2004).Scott, G.K., et al., EMBO J. 22(23):6234-6244 (2003).Rao, R.K., et al., Biochem. Biophys. Res. Commun. 293(1):610-616 (2002).Avdi, N.J., et al., J. Biol. Chem. 277(43):40687-40696 (2002).