

PP2A alpha Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8462a

Specification

PP2A alpha Antibody (N-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	P67775
Other Accession	P67777 , P67776 , P67774
Reactivity	Human
Predicted	Bovine, Pig, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	35594
Antigen Region	1-30

PP2A alpha Antibody (N-term) - 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

This PP2A alpha antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human PP2A alpha.

Dilution

WB~~1:1000
IHC-P~~1:50~100

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

PP2A alpha Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PP2A alpha Antibody (N-term) - Protein Information

Name PPP2CA

Function Catalytic subunit of protein phosphatase 2A (PP2A), a serine/threonine phosphatase involved in the regulation of a wide variety of enzymes, signal transduction pathways, and cellular events. 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). Part of the striatin-interacting phosphatase and kinase (STRIPAK) complexes. STRIPAK complexes have critical roles in protein (de)phosphorylation and are regulators of multiple signaling pathways including Hippo, MAPK, nuclear receptor and cytoskeleton remodeling. Different types of STRIPAK complexes are involved in a variety of biological processes such as cell growth, differentiation, apoptosis, metabolism and immune regulation (PubMed:[33633399](#)).

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](#)}

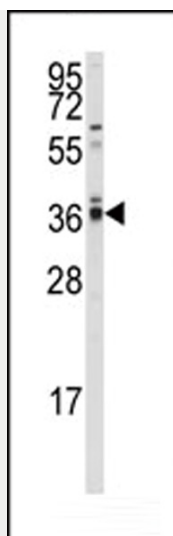
PP2A alpha Antibody (N-term) - Protocols

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

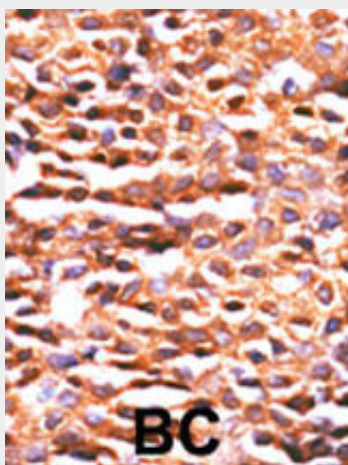
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PP2A alpha Antibody (N-term) - Images





Western blot analysis of anti-hPPP2CA/B Antibody (N-term) (Cat.#AP8462a) in A2058 cell line lysates (35ug/lane). PPP2CA/B (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

PP2A alpha Antibody (N-term) - 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 (N-term) - 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).