

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 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

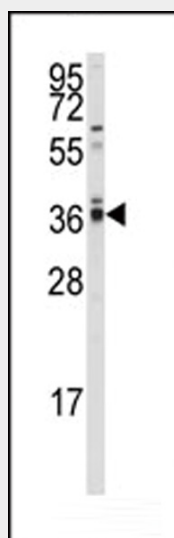
Cytoplasm. Nucleus. Chromosome, centromere. Cytoplasm, cytoskeleton, spindle pole. Note=In prometaphase cells, but not in anaphase cells, localizes at centromeres (PubMed:16541025). During mitosis, also found at spindle poles (PubMed:16541025). Centromeric localization requires the presence of SGO2 (By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

PP2A alpha Antibody (N-term) - Protocols

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

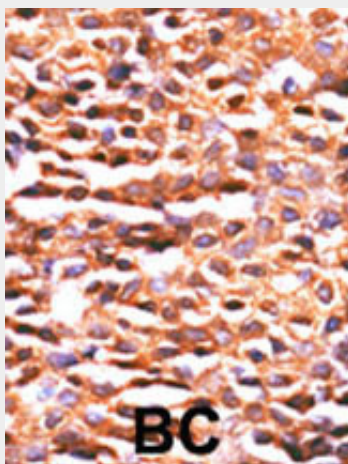
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

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).