

PPP2CA Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20181c

Specification

PPP2CA Antibody (Center) - Product Information

Application	WB,E
Primary Accession	P67775
Other Accession	P23696 , P63331 , P67777 , P67776 , P63330 , P67774 , NP_002706.1
Reactivity	Mouse
Predicted	Bovine, Pig, Rabbit, Rat, Drosophila
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	35594
Antigen Region	88-116

PPP2CA Antibody (Center) - 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 PPP2CA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 88-116 amino acids from the Central region of human PPP2CA.

Dilution

WB~~1:1000

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

PPP2CA Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

PPP2CA Antibody (Center) - 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

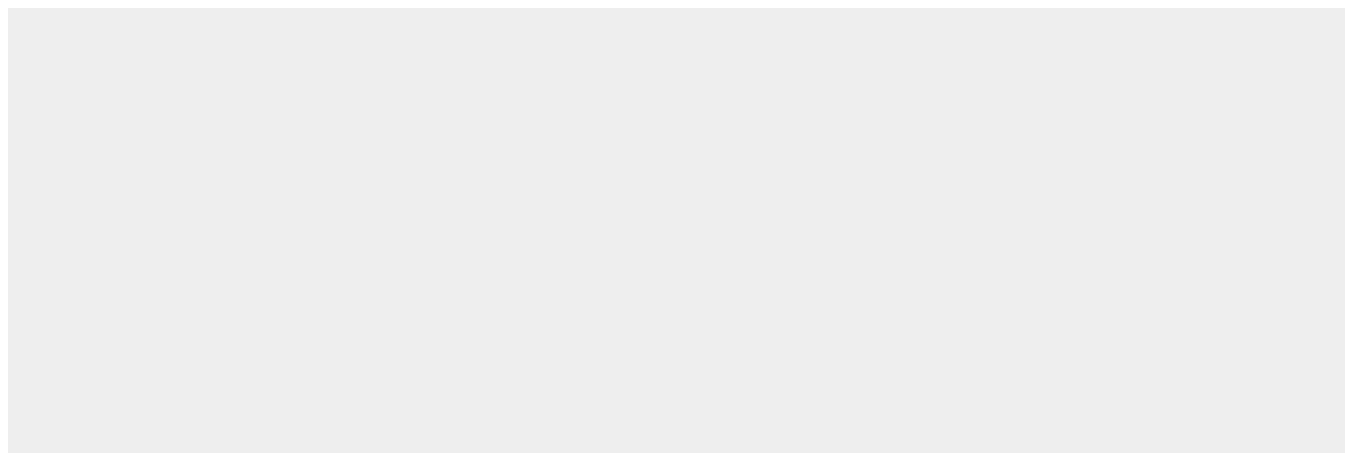
Cytoplasm. Nucleus. Chromosome, centromere. Cytoplasm, cytoskeleton, spindle pole. Note=In prometaphase cells, but not in anaphase cells, localizes at centromeres (PubMed:[16541025](#)). During mitosis, also found at spindle poles (PubMed:[16541025](#)). Centromeric localization requires the presence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

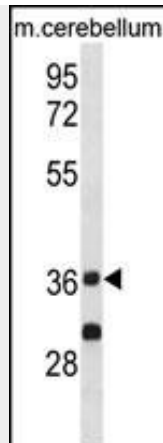
PPP2CA Antibody (Center) - Protocols

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](#)

PPP2CA Antibody (Center) - Images





PPP2CA Antibody (Center) (Cat. #AP20181c) western blot analysis in mouse cerebellum tissue lysates (35ug/lane). This demonstrates the PPP2CA antibody detected the PPP2CA protein (arrow).

PPP2CA Antibody (Center) - Background

This gene encodes 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. This gene encodes an alpha isoform of the catalytic subunit.

PPP2CA Antibody (Center) - References

- Shimada, M., et al. Hum. Genet. 128(4):433-441(2010)
- Jayadeva, G., et al. J. Biol. Chem. 285(39):29863-29873(2010)
- Pradhan, S., et al. J. Biol. Chem. 285(38):29059-29068(2010)
- Schmitz, M.H., et al. Nat. Cell Biol. 12(9):886-893(2010)
- Antony, R., et al. J. Biol. Chem. 285(24):18301-18308(2010)