

**PPP2CA (pY307) Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP51629**

**Specification**

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**PPP2CA (pY307) Antibody - Product Information**

Application	<b>WB, E</b>
Primary Accession	<a href="#">P67775</a>
Reactivity	<b>Human, Mouse, Rat</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Calculated MW	<b>36 KDa</b>

**PPP2CA (pY307) Antibody - Additional Information**

**Gene ID** 5515

**Other Names**

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

**Format**

0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**PPP2CA (pY307) Antibody - 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](http://www.uniprot.org/citations/22613722)). PP2A can modulate the activity of phosphorylase B kinase casein kinase 2, mitogen-stimulated S6 kinase, and MAP-2 kinase (PubMed: [22613722](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/17245430)). Activates RAF1 by dephosphorylating it at 'Ser-259' (PubMed: [10801873](http://www.uniprot.org/citations/10801873)). Mediates dephosphorylation of WEE1, preventing its ubiquitin-mediated proteolysis, increasing WEE1 protein levels, and promoting the G2/M checkpoint (PubMed: [33108758](http://www.uniprot.org/citations/33108758)). Mediates dephosphorylation of MYC; promoting its ubiquitin-mediated proteolysis: interaction with AMBRA1

enhances interaction between PPP2CA and MYC (PubMed:<a href="http://www.uniprot.org/citations/25438055" target="\_blank">25438055</a>). Mediates dephosphorylation of FOXO3; promoting its stabilization: interaction with AMBRA1 enhances interaction between PPP2CA and FOXO3 (PubMed:<a href="http://www.uniprot.org/citations/30513302" target="\_blank">30513302</a>). 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:<a href="http://www.uniprot.org/citations/33633399" target="\_blank">33633399</a>).

#### 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 (pY307) Antibody - 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 (pY307) Antibody - Images

#### PPP2CA (pY307) Antibody - Background

PP2A is the major phosphatase for microtubule-associated proteins (MAPs). PP2A can modulate the activity of phosphorylase B kinase casein kinase 2, mitogen-stimulated S6 kinase, and MAP-2 kinase. Cooperates with SGOL2 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. Activates RAF1 by dephosphorylating it at 'Ser-259'.

#### PPP2CA (pY307) Antibody - References

Stone S.R.,et al.Nucleic Acids Res. 16:11365-11365(1988).  
Arino J.,et al.Proc. Natl. Acad. Sci. U.S.A. 85:4252-4256(1988).  
Khew-Goodall Y.,et al.Biochemistry 30:89-97(1991).  
Scheidtmann K.H.,et al.Mol. Cell. Biol. 11:1996-2003(1991).  
Favre B.,et al.J. Biol. Chem. 269:16311-16317(1994).