

**Anti-PPP2CA Antibody**  
Rabbit polyclonal antibody to PPP2CA  
Catalog # AP61520

### Specification

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#### Anti-PPP2CA Antibody - Product Information

Application	WB, IF
Primary Accession	<a href="#">P67775</a>
Other Accession	<a href="#">P63330</a>
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Chicken, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	35594

#### Anti-PPP2CA Antibody - Additional Information

Gene ID 5515

#### Other Names

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

#### Target/Specificity

Recognizes endogenous levels of PPP2CA protein.

#### Dilution

WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500)  
IF~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500)

#### Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

#### Storage

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

#### Anti-PPP2CA 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:<a href="http://www.uniprot.org/citations/22613722" target="\_blank">22613722</a>). PP2A can modulate the activity of phosphorylase B kinase casein kinase 2, mitogen-stimulated S6 kinase, and MAP-2 kinase (PubMed:<a href="http://www.uniprot.org/citations/22613722"

target="\_blank">22613722</a>). Cooperates with SGO2 to protect centromeric cohesin from separate-mediated cleavage in oocytes specifically during meiosis I (By similarity). Can dephosphorylate SV40 large T antigen and p53/TP53 (PubMed:<a href="http://www.uniprot.org/citations/17245430" target="\_blank">17245430</a>). Activates RAF1 by dephosphorylating it at 'Ser-259' (PubMed:<a href="http://www.uniprot.org/citations/10801873" target="\_blank">10801873</a>). Mediates dephosphorylation of WEE1, preventing its ubiquitin-mediated proteolysis, increasing WEE1 protein levels, and promoting the G2/M checkpoint (PubMed:<a href="http://www.uniprot.org/citations/33108758" target="\_blank">33108758</a>). 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}

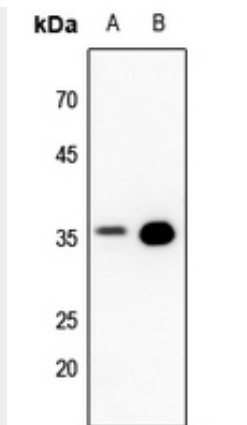
#### Anti-PPP2CA Antibody - Protocols

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

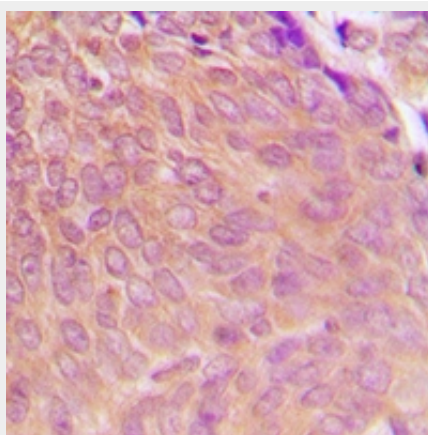
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Anti-PPP2CA Antibody - Images

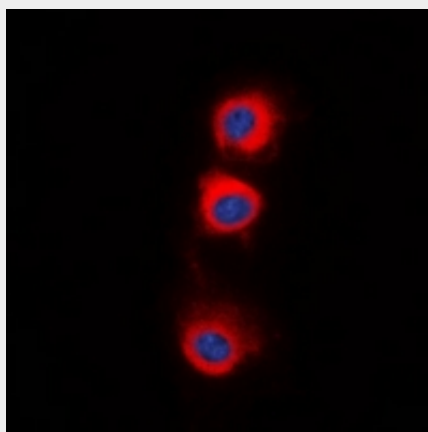




Western blot analysis of PPP2CA expression in HeLa (A), U2OS (B) whole cell lysates.



Immunohistochemical analysis of PPP2CA staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of PPP2CA staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

#### **Anti-PPP2CA Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human PPP2CA. The exact sequence is proprietary.