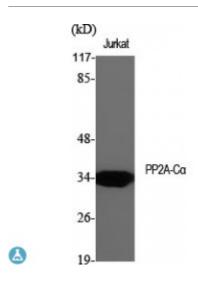


## Anti-PP2A- alpha antibody



**Description** Rabbit polyclonal to PP2A-Calpha.

Model STJ95195

**Host** Rabbit

**Reactivity** Human, Mouse, Rat

**Applications** ELISA, IF, IHC, WB

**Immunogen** Synthesized peptide derived from human PP2A-Calpha around the non-

phosphorylation site of Y307.

**Immunogen Region** 250-330 aa

**Gene ID** <u>5515</u>

Gene Symbol PPP2CA

**Dilution range** WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:5000

**Specificity** PP2A-Calpha Polyclonal Antibody detects endogenous levels of PP2A-Calpha

protein.

**Purification** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

**Note** For Research Use Only (RUO).

**Protein Name** Serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform

PP2A-alpha Replication protein C RP-C

Molecular Weight 40 kDa

**Clonality** Polyclonal

**Conjugation** Unconjugated

**Isotype** IgG

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

**Concentration** 1 mg/ml

**Storage Instruction** Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:9299OMIM:176915</u>

**Alternative Names** Serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform

PP2A-alpha Replication protein C RP-C

**Function** 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 SGO2 to protect centromeric cohesin from separase-mediated cleavage in oocytes specifically during meiosis I . Can dephosphorylate SV40 large T antigen and

p53/TP53. Activates RAF1 by dephosphorylating it at 'Ser-259'.

**Cellular Localization** Cytoplasm Nucleus Chromosome, centromere Cytoplasm, cytoskeleton,

spindle pole. In prometaphase cells, but not in anaphase cells, localizes at centromeres. During mitosis, also found at spindle poles. Centromeric

localization requires the presence of SGO2 .

**Post-translational** Reversibly methyl esterified on Leu-309 by leucine carboxyl

**Modifications** methyltransferase 1 (LCMT1) and protein phosphatase methylesterase 1

(PPME1). Carboxyl methylation influences the affinity of the catalytic subunit

for the different regulatory subunits, thereby modulating the PP2A

holoenzyme's substrate specificity, enzyme activity and cellular localization. Phosphorylation of either threonine (by autophosphorylation-activated protein

kinase) or tyrosine results in inactivation of the phosphatase. Auto-

dephosphorylation has been suggested as a mechanism for reactivation.; May

be monoubiquitinated by NOSIP.

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