

Rabbit PP2A-alpha Polyclonal Antibody | anti-PP2A-alpha antibody

Phospho-PP2A-alpha (Tyr307) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329468	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Rabbit (100%), Chicken (100%), Xenopus (100%)	ELISA, Western Blot

PRODUCT SYNONYMS

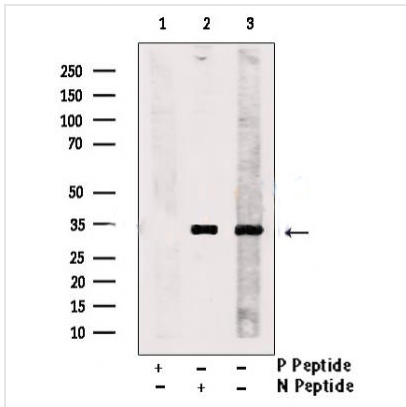
PP2A-alpha; Polyclonal Antibody; Phospho-PP2A-alpha (Tyr307) Antibody; PP2A alpha; PP2AA_HUMAN; PP2Aalpha; PP2Ac; PP2CA; PP2Calpha; PPP2CA; Protein phosphatase 2 (formerly 2A) catalytic subunit alpha isoform; Protein phosphatase 2 catalytic subunit alpha isoform; Protein phosphatase 2; catalytic subunit; alpha isozyme; Protein phosphatase 2A catalytic subunit; alpha isoform; Replication protein C; RP C; RP-C; RPC; Serine/threonine protein phosphatase 2A catalytic subunit alpha isoform; Serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform; anti-PP2A-alpha antibody

PRODUCT SPECIFICATIONS

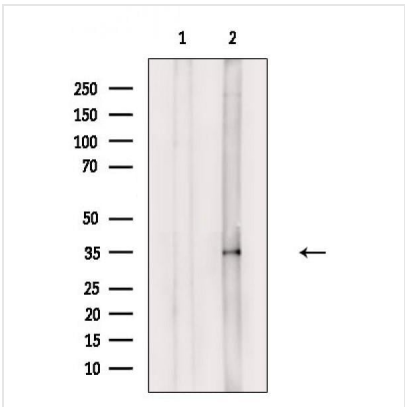
Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Rabbit (100%), Chicken (100%), Xenopus (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-PP2A-alpha (Tyr307) Antibody detects endogenous levels of PP2A-alpha only when phosphorylated at Tyr307.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-PP2A-alpha antibody	ELISA (Peptide ELISA), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PP2A-alpha around the phosphorylation site of Tyr307.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Reversibly methyl esterified on Leu-309 by leucine carboxyl 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. Polyubiquitinated, leading to its degradation by the proteasome.

Subunit Structure	PP2A consists of a common heterodimeric core enzyme, composed of PPP2CA a 36kDa catalytic subunit (subunit C) and PPP2R1A a 65kDa constant regulatory subunit (PR65 or subunit A), that associates with a variety of regulatory subunits. Proteins that associate with the core dimer include three families of regulatory subunits B (the R2/B/PR55/B55, R3/B"/PR72/PR130/PR59 and R5/B'/B56 families), the 48kDa variable regulatory subunit, viral proteins, and cell signaling molecules. Interacts with NXN; the interaction is direct (By similarity). Interacts with KCTD20 (By similarity). Interacts with BTBD10 (By similarity). Interacts with SGO1 and SGO2. Interacts with TP53. Interacts with AXIN1; the interaction dephosphorylates AXIN1. Interacts with PIM3; this interaction promotes dephosphorylation, ubiquitination and proteasomal degradation of PIM3. Interacts with RAF1. Interaction with IGBP1 protects unassembled PPP2CA from degradative ubiquitination. Interacts with GSK3B (via C2 domain). Interacts with MFHAS1; retains PPP2CA into the cytoplasm and excludes it from the nucleus. Interacts with FAM122A. Interacts with ADCY8; interaction is phosphatase activity-dependent; antagonizes interaction between ADCY8 and calmodulin. Interacts with CRTC3 (when phosphorylated at 'Ser-391').
Similarity	Belongs to the PPP phosphatase family. PP-1 subfamily.
Subcellular Location	Cytoplasm. Nucleus. Chromosome>Centromere. Cytoplasm>Cytoskeleton>Spindle pole. Note: 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 (By similarity).
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
Western blot analysis of extracts from HeLa , using Phospho-PP2A-alpha (Tyr307) Antibody. Lane1 was treated with phospho-blocking peptide, Lane2 was treated with non-phospho-blocking peptide.



WB (Western Blot)
Western blot analysis of extracts from K562 cells(UV treatment), using Phospho-PP2A-alpha (Tyr307) Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PP2A-alpha antibody	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 (By similarity). Can dephosphorylate SV40 large T antigen and p53/TP53. Activates RAF1 by dephosphorylating it at 'Ser-259'.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4506017
NCBI GeneID	5515
NCBI Accession #	NP_002706.1
NCBI GenBank Nucleotide #	NM_002715.2
UniProt Accession #	P67775; P05323; P13197
Molecular Weight	35,594 Da

NCBI Official Full Name	serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform
NCBI Official Synonym Full Names	protein phosphatase 2, catalytic subunit, alpha isozyme
NCBI Official Symbol	PPP2CA
NCBI Official Synonym Symbols	RP-C; PP2Ac; PP2CA; PP2Calpha
NCBI Protein Information	serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform; PP2A-alpha; replication protein C; protein phosphatase 2A catalytic subunit, alpha isoform; protein phosphatase 2 (formerly 2A), catalytic subunit, alpha isoform; serine/threonine pr
UniProt Protein Name	Serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform
UniProt Gene Name	PPP2CA
UniProt Synonym Gene Names	PP2A-alpha; RP-C
UniProt Entry Name	PP2AA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/pp2a-alpha-antibody-peptide-elisa-western-blot-elisa/329468>