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Immunotag™ PP2A-Cα Monoclonal Antibody

Antibody Specification

Catalog No.	ITM1079
Product Description	Immunotag™ PP2A-Cα Monoclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	PP2A-Cα
Clonality	Monoclonal
Storage/Stability	-20°C/1 year
Application	WB,IF
Recommended Dilution	Western Blot: 1/1000 - 1/2000. Immunofluorescence: 1/100 - 1/500. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Bovine,Chicken,Dog,Pig,Rb,Zebrafisheep
Host Species	Mouse
Immunogen	Purified recombinant human PP2A-Cα (N-terminus) protein fragments expressed in Ecoli
Specificity	PP2A-Cα Monoclonal Antibody detects endogenous levels of PP2A-Cα protein.
Purification	Affinity purification
Form	Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol.
Gene Name	PPP2CA
Accession No.	P67775 P63330 P63331
Alternate Names	PPP2CA; Serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform; PP2A-alpha; Replication protein C; RP-C

Antibody Specification

Description	protein phosphatase 2 catalytic subunit alpha(PPP2CA) Homo sapiens 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. [provided by RefSeq, Jul 2008],
Cell Pathway/ Category	Oocyte meiosis,WNT,WNT-T CELLTGF-beta,Tight junction,Long-term depression,
Protein Expression	Fibroblast,Liver,Lung,Placenta,Testis,Uterus,
Subcellular Localization	protein phosphatase type 2A complex,chromosome, centromeric region,spindle pole,nucleus,mitochondrion,cytosol,plasma membrane,microtubule cytoskeleton,membrane,extracellular exosome,
Protein Function	catalytic activity:A phosphoprotein + H(2)O = a protein + phosphate.,cofactor:Binds 1 iron ion per subunit.,cofactor:Binds 1 manganese ion per subunit.,function:PP2A can modulate the activity of phosphorylase B kinase casein kinase 2, mitogen-stimulated S6 kinase, and MAP-2 kinase. Can dephosphorylate SV40 large T antigen and p53. Dephosphorylates SV40 large T antigen, preferentially on serine residues 120, 123, 677, and perhaps 679. The C subunit was most active, followed by the AC form, which was more active than the ABC form, and activity of all three forms was strongly stimulated by manganese, and to a lesser extent by magnesium. Dephosphorylation by the AC form, but not C or ABC form is inhibited by small T antigen.,PTM: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.,PTM:Reversibly methyl esterified on Leu-309. Carboxyl methylation may play a role in holoenzyme assembly. It varies during the cell cycle.,similarity:Belongs to the PPP phosphatase family.,similarity:Belongs to the PPP phosphatase family. PP-1 subfamily.,subcellular location:In prometaphase cells, but not in anaphase cells, localizes at centromeres. During mitosis, also found at spindle poles.,subunit:PP2A consists of a common heterodimeric core enzyme, composed of a 36 kDa catalytic subunit (subunit C) and a 65 kDa 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 48 kDa variable regulatory subunit, viral proteins, and cell signaling molecules. Interacts with NXN; the interaction is direct (By similarity). May indirectly interact with SGOL1, most probably through regulatory B56 subunits.,
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