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Immunotag™ PP1α (phospho Thr320) Polyclonal Antibody

Antibody Specification

Catalog No.	ITP0974
Product Description	Immunotag™ PP1α (phospho Thr320) Polyclonal 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	PP1α (Thr320)
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	IHC-p,ELISA
Recommended Dilution	Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	Synthesized phospho-peptide around the phosphorylation site of human PP1α (phospho Thr320)
Specificity	Phospho-PP1α (T320) Polyclonal Antibody detects endogenous levels of PP1α protein only when phosphorylated at T320.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	PPP1CA
Accession No.	P62136 P62137 P62138
Alternate Names	PPP1CA; PPP1A; Serine/threonine-protein phosphatase PP1-alpha catalytic subunit; PP-1A

Antibody Specification

Description	protein phosphatase 1 catalytic subunit alpha(PPP1CA) Homo sapiens The protein encoded by this gene is one of the three catalytic subunits of protein phosphatase 1 (PP1). PP1 is a serine/threonine specific protein phosphatase known to be involved in the regulation of a variety of cellular processes, such as cell division, glycogen metabolism, muscle contractility, protein synthesis, and HIV-1 viral transcription. Increased PP1 activity has been observed in the end stage of heart failure. Studies in both human and mice suggest that PP1 is an important regulator of cardiac function. Mouse studies also suggest that PP1 functions as a suppressor of learning and memory. Three alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008],
Cell Pathway/ Category	Oocyte meiosis,Vascular smooth muscle contraction,Focal adhesion,Long-term potentiation,Regulates Actin and Cytoskeleton,Insulin_Receptor,
Protein Expression	Colon carcinoma,Liver,Lung,Muscle,Pancreas,Placenta,Platele
Subcellular Localization	protein phosphatase type 1 complex,nuclear chromosome, telomeric region,nucleus,nucleoplasm,nucleolus,cytoplasm,cytosol,plasma membrane,cell-cell junction,glycogen granule,dendritic spine,perikaryon,
Protein Function	catalytic activity:A phosphoprotein + H(2)O = a protein + phosphate.,caution:The sequence shown here is derived from an Ensembl automatic analysis pipeline and should be considered as preliminary data.,cofactor:Binds 1 iron ion per subunit.,cofactor:Binds 1 manganese ion per subunit.,enzyme regulation:The phosphatase activity of the PPP1R15A-PP1 complex toward EIF2S1 is specifically inhibited by Salubrinal, a drug that protects cells from endoplasmic reticulum stress.,function:Protein phosphatase 1 (PP1) is essential for cell division, and participates in the regulation of glycogen metabolism, muscle contractility and protein synthesis. Involved in regulation of ionic conductances and long-term synaptic plasticity. May play an important role in dephosphorylating substrates such as the postsynaptic density-associated Ca(2+)/calmodulin dependent protein kinase II.,online information:The things we forget -Issue 32 of March 2003,similarity:Belongs to the PPP phosphatase family.,similarity:Belongs to the PPP phosphatase family. PP-1 subfamily.,subunit:PP1 comprises a catalytic subunit, PPP1CA, PPP1CB or PPP1CC, which is folded into its native form by inhibitor 2 and glycogen synthetase kinase 3, and then complexed to one or several targeting or regulatory subunits. PPP1R12A, PPP1R12B and PPP1R12C mediate binding to myosin. PPP1R3A, PPP1R3B, PPP1R3C and PPP1R3D mediate binding to glycogen. Interacts with PPP1R9A and PPP1R9B. Part of a complex containing PPP1R15B, PP1 and NCK1/2 (By similarity). Interacts with PPP1R7. PPP1R15A and PPP1R15B mediate binding to EIF2S1. Interacts with HHV-1 ICP34.5.,
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