PPP1CB Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	PPP1CB, Monoclonal Antibody
Full Product Name	PPP1CB (Serine/Threonine Protein Phosphatase PP1-beta Catalytic Subunit, PP-1B, MGC3672, PP-1B, PPP1CD) APC
Product Gene Name	anti-PPP1CB antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	8A7
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Allophycocyanin (APC).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human PPP1CB.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: APC conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	37kDa
OMIM	600590
3D Structure	ModBase 3D Structure for P62140
Immunogen	Partial recombinant corresponding to aa231-327 from human PPP1CB (NP_002700) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	VSKFLNRHDLDLICRAHQVVEDGYEFFAKRQLVTLFSAPNYCGEFDNAGGMMSVDETLMCSFQILKPSEKKAKYQYGGLNSGRPVTPPRTANPPKKR
Conjugate	APC
Product Categories/Family for anti-PPP1CB antibody	Antibodies; Enzymes; Phosphatase
Applications Tested/Suitable for anti-PPP1CB antibody	ELISA (EIA)
Application Notes for anti-PPP1CB antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-PPP1CB antibody	PPP1CB 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. Mouse studies suggest that PP1 functions as a suppressor of learning and memory.

Other Notes	Small volumes of anti-PPP1CB antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PPP1CB purchase	MBS6138395 is an antibody targeting PPP1CB. Also known as PPP1CB (Serine/Threonine Protein Phosphatase PP1-beta Catalytic Subunit, PP-1B, MGC3672, PP-1B, PPP1CD) APC. Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PPP1CB. It may not necessarily be applicable to this product.

NCBI GI #	4506005
NCBI GeneID	5500
NCBI Accession #	NP_002700
UniProt Primary Accession #	P62140
UniProt Related Accession #	P62140
GenBank Nucleotide #	NM_002709
NCBI Official Full Name	serine/threonine-protein phosphatase PP1-beta catalytic subunit isoform 1
NCBI Official Synonym Full Names	protein phosphatase 1 catalytic subunit beta
NCBI Official Symbol	PPP1CB
NCBI Official Synonym Symbols	PP1B; NSLH2; PP-1B; PPP1CD; PP1beta; HEL-S-80p
UniProt Protein Name	Serine/threonine-protein phosphatase PP1-beta catalytic subunit
Protein Family	Serine/threonine-protein phosphatase
UniProt Gene Name	PPP1CB
UniProt Synonym Gene Names	PP-1B; PPP1CD
UniProt Entry Name	PP1B_HUMAN
NCBI Protein Information	serine/threonine-protein phosphatase PP1-beta catalytic subunit
NCBI Summary for PPP1CB	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. Mouse studies suggest that PP1 functions as a suppressor of learning and memory. Two alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2008]

UniProt Comments for PPP1CB	PPP1CB: is a catalytic subunit of protein phosphatase 1 (PP1), a ubiquitous cytosolic serine-threonine phosphatase. Composed 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 and PPP1R12B mediate binding to myosin; PPP1R3A, PPP1R3B, PPP1R3C and PPP1R3D mediate binding to glycogen; and PPP1R15A and PPP1R15B mediate binding to EIF2S1. PP1 is essential for cell division, plays critical roles in many cellular processes including glycogen metabolism, muscle contractility and protein synthesis, and is involved in the regulation of ionic conductances and long-term synaptic plasticity. Inhibits the synthesis of proteins involved in synaptic plasticity. Binds to the transcription factor cyclic AMP-dependent response element binding (CREB) and dephosphorylates it. May regulate chromatin condensation through regulation of histone H3 phosphorylation. Differentially expressed in gastric cancer. May participate in the neurodegenerative progress in Alzheimer's disease. Down-regulated in lung squamous cell carcinoma. Protein type: Nucleolus; Motility/polarity/chemotaxis; EC 3.1.3.16; EC 3.1.3.53; Protein phosphatase, Ser/Thr (non-receptor) Chromosomal Location of Human Ortholog: 2p23 Cellular Component: nucleoplasm; focal adhesion; glycogen granule; nucleolus; protein phosphatase type 1 complex; nucleus Molecular Function: protein binding; myosin-light-chain-phosphatase activity; metal ion binding; phosphoric monoester hydrolase activity; myosin phosphatase activity; protein kinase binding Biological Process: regulation of cell adhesion; glycogen metabolic process; regulation of glycogen biosynthetic process; protein amino acid dephosphorylation; regulation of circadian rhythm; entrainment of circadian clock by photoperiod; regulation of glycogen catabolic process; cell division; transforming growth factor beta receptor signaling pathway; triacylglycerol catabolic process; circadian regulation of gene expression; mitotic cell cycle; G2/M transition of mitotic cell cycle; negative regulation of transforming growth factor beta receptor signaling pathway
Research Articles on PPP1CB	**1.** PPP1CB mutation is associated with Noonan syndrome.
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