Anti-MYPT1 antibody

Description	Rabbit polyclonal to MYPT1.

Model	STJ94320
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IHC, WB
Immunogen	Synthesized peptide derived from human MYPT1 around the non-phosphorylation site of T853.
Immunogen Region	590-670 aa
Gene ID	4659
Gene Symbol	PPP1R12A
Dilution range	WB 1:500-1:2000IHC 1:100-1:300ELISA 1:5000
Specificity	MYPT1 Polyclonal Antibody detects endogenous levels of MYPT1 protein.
Tissue Specificity	Expressed in striated muscles, specifically in type 2a fibers (at protein level).
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Protein phosphatase 1 regulatory subunit 12A Myosin phosphatase-targeting subunit 1 Myosin phosphatase target subunit 1 Protein phosphatase myosin-binding subunit
Molecular Weight	130 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	HGNC:7618OMIM:602021
Alternative Names	Protein phosphatase 1 regulatory subunit 12A Myosin phosphatase-targeting subunit 1 Myosin phosphatase target subunit 1 Protein phosphatase myosin-binding subunit
Function	Key regulator of protein phosphatase 1C (PPP1C). Mediates binding to myosin. As part of the PPP1C complex, involved in dephosphorylation of PLK1. Capable of inhibiting HIF1AN-dependent suppression of HIF1A activity.
Sequence and Domain Family	Heterotetramerization is mediated by the interaction between a coiled-coil of PRKG1 and the leucine/isoleucine zipper of PPP1R12A/MBS, the myosin-binding subunit of the myosin phosphatase. The KVKF motif mediates interaction with PPP1CB.
Cellular Localization	Cytoplasm. Along actomyosin filaments and stress fibers.
Post-translational Modifications	Phosphorylated by CIT (Rho-associated kinase) . Phosphorylated cooperatively by ROCK1 and CDC42BP on Thr-696. Phosphorylated on upon DNA damage, probably by ATM or ATR. In vitro, phosphorylation of Ser-695 by PKA and PKG appears to prevent phosphorylation of the inhibitory site Thr-696, probably mediated by PRKG1. Phosphorylation at Ser-445, Ser-472 and Ser-910 by NUAK1 promotes interaction with 14-3-3, leading to inhibit interaction with myosin light chain MLC2, preventing dephosphorylation of MLC2. May be phosphorylated at Thr-696 by DMPK; may inhibit the myosin phosphatase activity. Phosphorylated at Ser-473 by CDK1 during mitosis, creating docking sites for the POLO box domains of PLK1. Subsequently, PLK1 binds and phosphorylates PPP1R12A.