

Rabbit MYPT1 Polyclonal Antibody | anti-MYPT1 antibody

MYPT1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA328576	Rabbit	Human, Mouse, RatPredicted: Horse, Sheep, Rabbit, Dog	ELISA, Western Blot

PRODUCT SYNONYMS

MYPT1; Polyclonal Antibody; MYPT1 Antibody; M130; MBS; Myosin binding subunit; Myosin phosphatase target subunit 1; Myosin phosphatase targeting subunit 1; Myosin phosphatase-targeting subunit 1; MYPT1_HUMAN; PPP1R12A; Protein phosphatase 1 regulatory inhibitor subunit 12A; Protein phosphatase 1 regulatory subunit 12A; Protein phosphatase 1; regulatory (inhibitor) subunit 12A; Protein phosphatase myosin binding subunit; Protein phosphatase myosin-binding subunit; anti-MYPT1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted: Horse, Sheep, Rabbit, Dog
Clonality	Polyclonal
Isotype	IgG
Specificity	MYPT1 Antibody detects endogenous levels of MYPT1.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin (Thermo Fisher Scientific).
Form/Format	Liquid; Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1030
Applicable Applications for anti-MYPT1 antibody	ELISA (Peptide ELISA), WB (Western Blot)
Immunogen	A synthesized peptide derived from human MYPT1.
Tissue Specificity	Expressed in striated muscles, specifically in type 2a fibers (at protein level).
Subcellular Location	Cytoplasm. Along actomyosin filaments and stress fibers.
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 various samples, using MYPT1 Antibody. Lane 1: Mouse liver, treated with blocking peptide; Lane 2: Mouse liver; Lane 3: Rat brain; Lane 4: B16F10 cells; Lane 5: Rat heart. Observed bands: 150 kDa.



WB (Western Blot)

Western blot analysis of MYPT1 in lysates of HeLa?, using MYPT1 Antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-MYPT1 antibody	Description: 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. Post Translational Modifications: Phosphorylated by CIT (Rho-associated kinase) (By similarity). 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 NUA1 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. Subunit Structure: PP1 comprises a catalytic subunit, PPP1CA, PPP1CB or PPP1CC, and one or several targeting or regulatory subunits. PPP1R12A mediates binding to myosin. Interacts with ARHA and CIT (By similarity). Binds PPP1R12B, ROCK1 and IL16. Interacts directly with PRKG1. Non-covalent dimer of 2 dimers; PRKG1-PRKG1 and PPP1R12A-PPP1R12A. Interacts with SMTNL1 (By similarity). Interacts with PPP1CB; the interaction is direct. Interacts (when phosphorylated at Ser-445, Ser-472 and Ser-910) with 14-3-3. Interacts with ROCK1 and ROCK2. Interacts with isoform 1 and isoform 2 of ZIPK/DAPK3. Interacts with RAF1. Interacts with HIF1AN. Interacts with NCKAP1L (PubMed:16417406). Similarity: 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.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	219842212
NCBI GeneID	4659
NCBI Accession #	NP_001137357.1
NCBI GenBank Nucleotide #	NP_001137357.1
UniProt Accession #	O14974
Molecular Weight	Observed: 115 kDa Predicted: 116 kDa
NCBI Official Full Name	protein phosphatase 1 regulatory subunit 12A isoform a
NCBI Official Synonym Full Names	protein phosphatase 1 regulatory subunit 12A
NCBI Official Symbol	PPP1R12A
NCBI Official Synonym Symbols	MBS; M130; MYPT1
NCBI Protein Information	protein phosphatase 1 regulatory subunit 12A
UniProt Protein Name	Protein phosphatase 1 regulatory subunit 12A
UniProt Gene Name	PPP1R12A
UniProt Synonym Gene Names	MBS; MYPT1; Myosin phosphatase target subunit 1
UniProt Entry Name	MYPT1_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.