Rabbit MYPT1 Polyclonal Antibody | anti-MYPT1 antibody

MYPT1 (Phospho-Thr853) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322080	**Rabbit**	**Human, Mouse, Rat**	**ELISA, Immunohistochemistry, Western Blot**

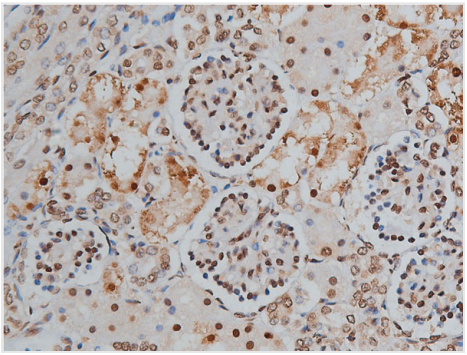
PRODUCT SYNONYMS

MYPT1; Polyclonal Antibody; MYPT1 (Phospho-Thr853) 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

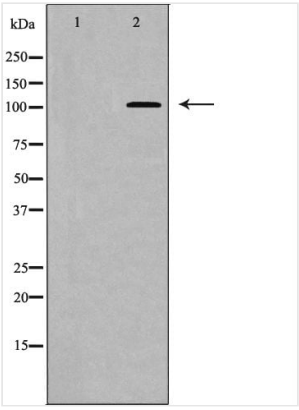
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	MYPT1 (Phospho-Thr853) antibody detects endogenous levels of total MYPT1 (Phospho-Thr853)
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
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, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human MYPT1 (Phospho-Thr853)
Subcellular Location	Cytoplasm. Along actomyosin filaments and stress fibers.
Tissue Specificity	Expressed in striated muscles, specifically in type 2a fibers (at protein level).
Predicted Cross Reactivity	**Zebrafish, Horse, Rabbit, Dog, Chicken, Xenopus**
Similarity	Zebrafish (100%), Horse (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (88%)
Conjugation	Unconjugated
Epitope	Phospho Thr853
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

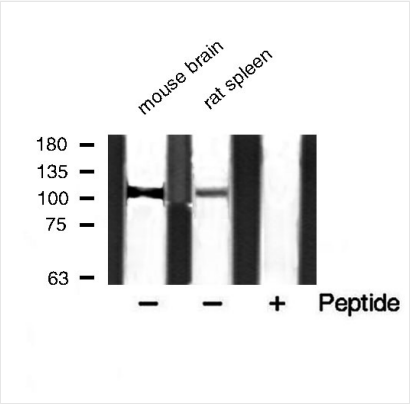
IMAGES



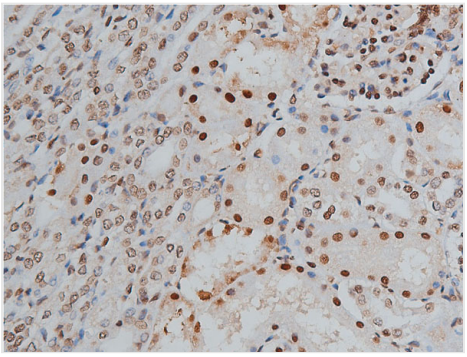
IHC (Immunohistochemistry)
AAA322080 at 1/200 staining human kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of MYPT1 (Phospho-Thr853) expression in NIH/3T3 cell extract.The lane on the left is treated with the antigen-specific peptide.



WB (Western Blot)
Western blot analysis of extracts of various smaple, using PMYPT1 (Phospho-Thr853) Antibody.



IHC (Immunohistochemistry)
AAA322080 at 1/200 staining human kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-MYPT1 antibody	Description: 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. 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. 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). 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 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. 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.

References	Ye Y, Jing X, Li N, Wu Y, Li B, Xu T; Journal: Biomed Pharmacother. Icariin promotes proliferation and osteogenic differentiation of rat adipose-derived stem cells by activating the RhoA-TAZ signaling pathway. Xiaojun W, Yan L, Hong X, Xianghong Z, Shifeng L, Dingjie X, Xuemin G, Lijuan Z, Bonan Z, Zhongqiu W, Ruimin W, Brann D, Fang Y; Journal: Sci Rep. Acetylated a-Tubulin Regulated by N-Acetyl-Seryl-Aspartyl-Lysyl-Proline(Ac-SDKP) Exerts the Anti-fibrotic Effect in Rat Lung Fibrosis Induced by Silica.

NCBI AND UNIPROT INFORMATION

NCBI GI #	219842212
NCBI GeneID	4659
NCBI Accession #	NP_001137357.1
NCBI GenBank Nucleotide #	NM_001143885.1
UniProt Accession #	O14974; Q2NKL4; Q569H0; Q86WU3; Q8NFR6; Q9BYH0; B4DZ09; F8VWB4
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	Myosin phosphatase target subunit 1

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.

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Online datasheet: https://stage.aaabiotech.com/polyclonal/mypt1-antibody-immunohistochemistry-western-blot-elisa/322080