SunLong Biotech Co.,LTD
Tel: 0086-571- 56623320 Fax:0086-571- 56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-Phospho-MYPT1 (Thr853) antibody

SL3288R

Product Name:	Phospho-MYPT1 (Thr853)
Chinese Name:	磷酸化肌球蛋白磷酸酶抗体
Alias:	Myosin Phosphatase (phospho T853); Myosin Phosphatase (phospho Thr853); p-MYPT1(Thr853); Myosin Phosphatase; M130; MBS; MGC133042; Myosin phosphatase target subunit 1; Myosin phosphatase targeting subunit 1; MYPT 1; MYPT1; PPP1R12A; Protein phosphatase 1 regulatory inhibitor subunit 12A; Protein phosphatase 1 regulatory subunit 12A; Protein phosphatase myosin binding subunit; MYPT1_HUMAN; Myosin phosphatase-targeting subunit 1; Protein phosphatase myosin-binding subunit.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Cow,Horse,Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	113kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human around the phosphorylation site of Thr853:RS(p-T)GV
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

PubMed:	PubMed
Product Detail:	Myosin phosphatase regulates the interaction of actin and myosin downstream of the guanosine triphosphatase Rho. The small guanosine triphosphatase Rho is implicated in myosin light chain (MLC) phosphorylation, which results in contraction of smooth muscle and interaction of actin and myosin in non muscle cells. The guanosine triphosphate (GTP) bound, active form of RhoA (GTP.RhoA) specifically interacted with the myosin binding subunit (MBS) of myosin phosphatase, which regulates the extent of phosphorylation of MLC. Rho associated kinase (Rho kinase), which is activated by GTP. RhoA, phosphorylated MBS and consequently inactivated myosin phosphatase. Overexpression of RhoA or activated RhoA in NIH 3T3 cells increased phosphorylation of MBS and MLC. Therefore Rho appears to inhibit myosin phosphatase through the action of Rho kinase. **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:** 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. Binds PPP1R12B, ROCK1 and IL16. Interacts directly with PRKG1. Non-covalent dimer of 2 dimers; PRKG1-PRKG1 and PPP1R12A-PPP1R12A. Interacts with SMTNL1. 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. **Subcellular Location:** Cytoplasm. Note=Along actomyosin filaments and stress fibers. **Tissue Specificity:** Expressed in striated muscles, specifically in type 2a fibers (at protein level). **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.

Similarity:
Contains 6 ANK repeats.

SWISS:
O14974

Gene ID:
4659

Database links:

Entrez Gene: 4659Human

Entrez Gene: 17931Mouse

Entrez Gene: 116670Rat

Omim: 602021Human

SwissProt: O14974Human

SwissProt: Q9DBR7Mouse

SwissProt: Q10728Rat

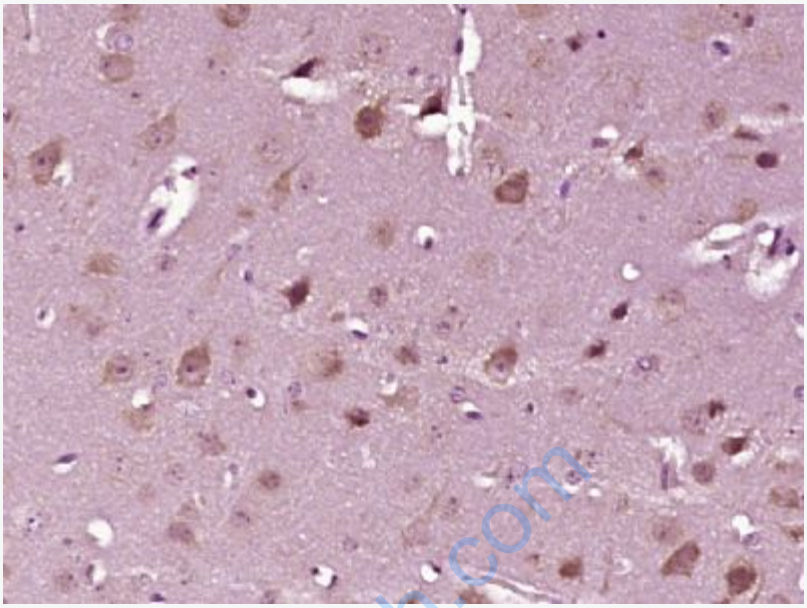
Unigene: 49582Human

Unigene: 422959Mouse

Unigene: 482714Mouse

Unigene: 162937Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:	 Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Phospho-MYPT1 (Thr853)) Polyclonal Antibody, Unconjugated (SL3288R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.