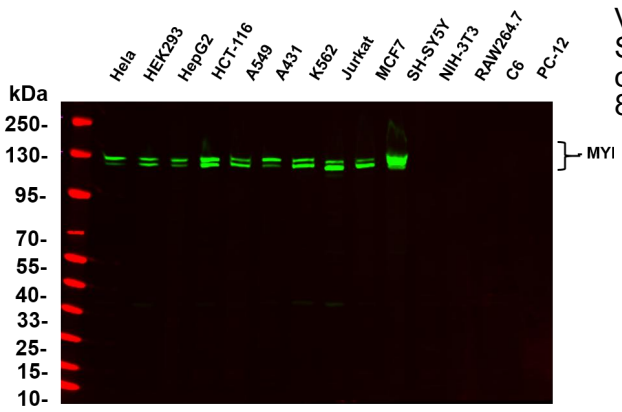
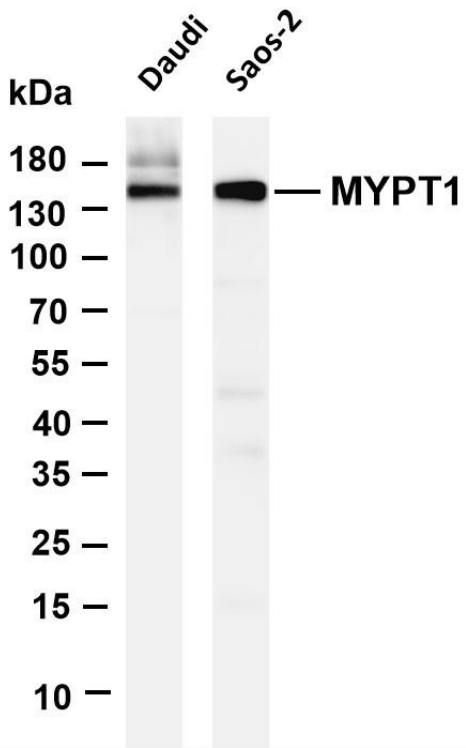
MYPT1 Rabbit mAb

Catalog No	YP-rAb-17752
Isotype	IgG
Reactivity	Human
Applications	WB,IHC,IF,IP,ELISA
Gene Name	PPP1R12A
Protein Name	Protein phosphatase 1 regulatory subunit 12A
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:200-1:1000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15° C to -25° C/1 year(Do not lower than -25° C)
Synonyms	PPP1R12A ; MBS ; MYPT1 ; Protein phosphatase 1 regulatory subunit 12A ; Myosin phosphatase-targeting subunit 1 ; Myosin phosphatase target subunit 1 ; Protein phosphatase myosin-binding subunit
Observed Band	140kD
Calculated Molecular Weight	115kD
Cell Pathway	Cytoplasm
Tissue Specificity	Expressed in striated muscles, specifically in type 2a fibers (at protein level).
Function	Regulates myosin phosphatase activity.,PTM: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.,sequence Caution:Contaminating sequence. Potential poly-A sequence.,similarity:Contains 6 ANK repeats.,subcellular location:Along actomyosin filaments and stress fibers.,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 (By similarity). Binds PPP1R12B, ROCK1 and IL16.,

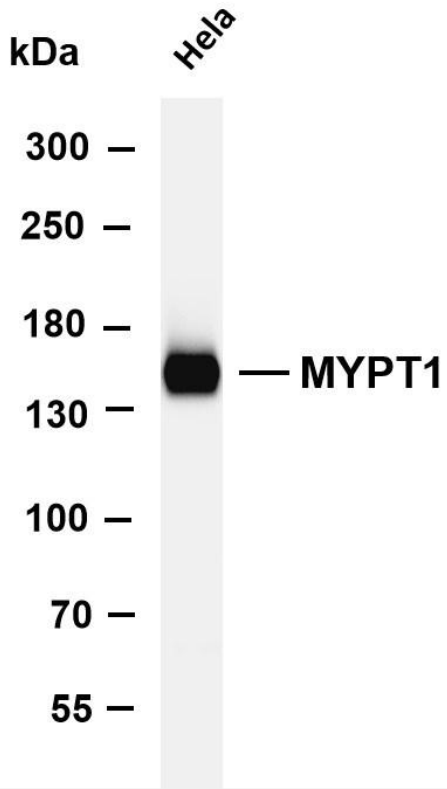
Background	Myosin phosphatase target subunit 1, which is also called the myosin-binding subunit of myosin phosphatase, is one of the subunits of myosin phosphatase. Myosin phosphatase regulates the interaction of actin and myosin downstream of the guanosine triphosphatase Rho. The small guanosine triphosphatase Rho is implicated in myosin light chain (MLC) phosphorylation, which results in contraction of smooth muscle and interaction of actin and myosin in nonmuscle 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 phosph
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



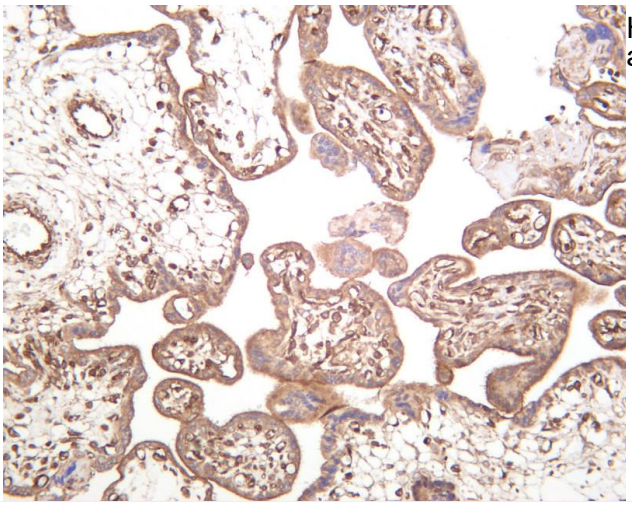
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4～C, over night with a 1:5000 dilution . The Dylight 800-conjugated Goat anti-Rabbit antibody



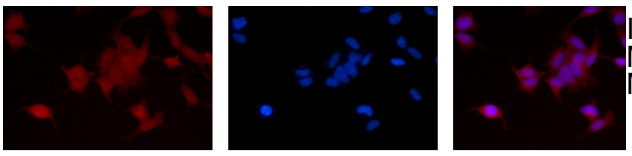
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-MYPT1 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Daudi Lane 2: Saos-2 Predicted band size: 140kDa Observed band size: 140kDa



Various whole cell lysates were separated by 4-8% SDS-PAGE, and the membrane was blotted with anti-MYPT1 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Hela Predicted band size: 140kDa Observed band size: 140kDa



Human placenta was stained with anti-MYPT1 rabbit antibody



Immunofluorescence analysis of HEK293. Picture A: MYPT1 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B