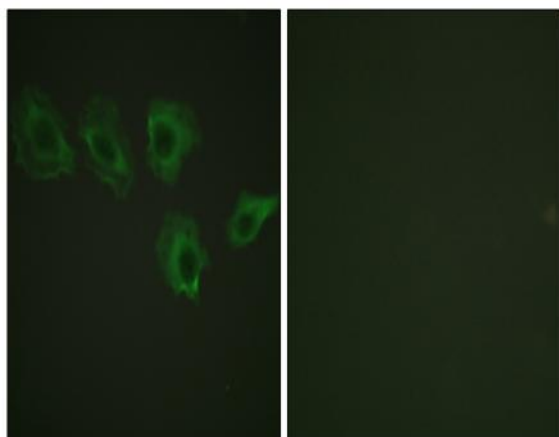


MYPT1 (phospho Thr696) Polyclonal Antibody

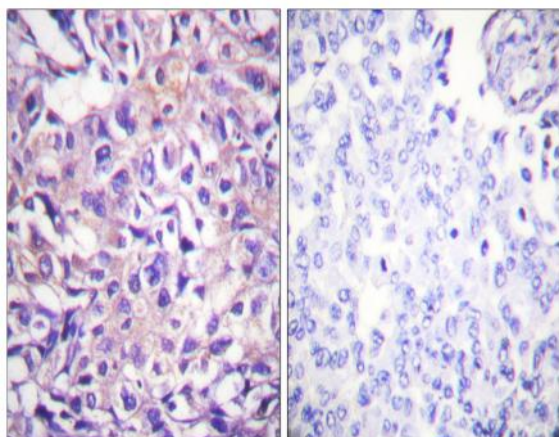
Catalog No :	YP1131
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
Target :	MYPT1
Fields :	>>cGMP-PKG signaling pathway;>>cAMP signaling pathway;>>Vascular smooth muscle contraction;>>Focal adhesion;>>Platelet activation;>>Regulation of actin cytoskeleton;>>Oxytocin signaling pathway;>>Proteoglycans in cancer
Gene Name :	PPP1R12A
Protein Name :	Protein phosphatase 1 regulatory subunit 12A
Human Gene Id :	4659
Human Swiss Prot No :	O14974
Mouse Gene Id :	17931
Mouse Swiss Prot No :	Q9DBR7
Rat Gene Id :	116670
Rat Swiss Prot No :	Q10728
Immunogen :	The antiserum was produced against synthesized peptide derived from human MYPT1 around the phosphorylation site of Thr696. AA range:661-710
Specificity :	Phospho-MYPT1 (T696) Polyclonal Antibody detects endogenous levels of MYPT1 protein only when phosphorylated at T696.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG

Dilution :	WB 1:500-2000 IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications.
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Molecularweight :	115kD
Cell Pathway :	Vascular smooth muscle contraction;Focal adhesion;Long-term potentiation;Regulates Actin and Cytoskeleton;
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
Function :	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.,
Subcellular Location :	Cytoplasm . Cytoplasm, cytoskeleton, stress fiber . Also along actomyosin filaments. .
Expression :	Expressed in striated muscles, specifically in type 2a fibers (at protein level).

Products Images



Immunofluorescence analysis of A549 cells, using MYPT1 (Phospho-Thr696) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using MYPT1 (Phospho-Thr696) Antibody. The picture on the right is blocked with the phospho peptide.