Anti-MYPT1 Rabbit pAb

Purified Rabbit Polyclonal Antibody

Catalog # P100242

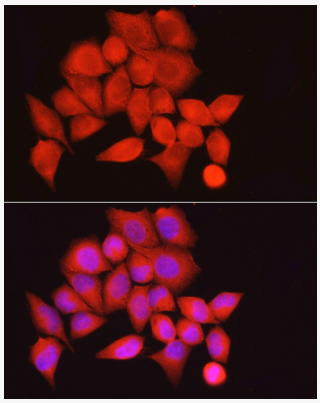
Product Information

Application	WB, IF (Cell)/ICC, IP, ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:500~1:2000; IF 1:50~1:200; IP 0.5μg-4μg antibody for 200μg-400μg extracts of whole cells
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 1-200 of human PPP1R12A (NP_002471.1).
Format	Affinity purified polyclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-MYPT1 Rabbit pAb is for research use only and not for use in diagnostic or therapeutic procedures.

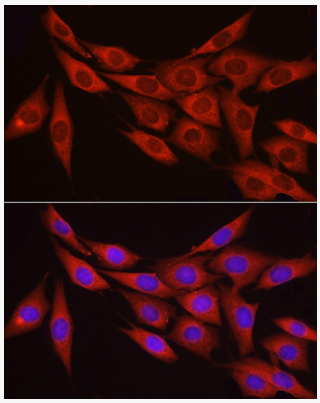
Protein Information

Synonyms	MBS; GUBS; M130; MYPT1; PPP1R12A.
Calculated MW	Calculated MW: 115 kDa; Observed MW: 140 kDa
Uniprot ID	O14974
Gene ID	4659
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 phosphorylation of MBS and MLC. Thus, Rho appears to inhibit myosin phosphatase through the action of Rho-kinase. Several transcript variants encoding different isoforms have been found for this gene.

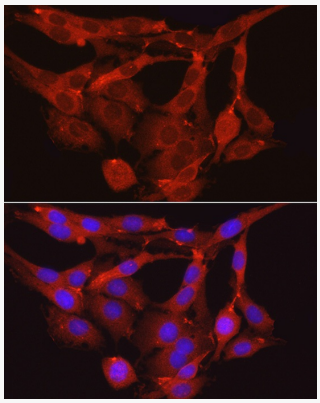
Validation Images



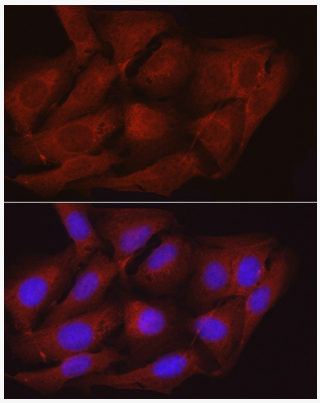
Immunofluorescence analysis of HeLa cells using PPP1R12A Rabbit pAb (P100242) at dilution of 1:100 (40× lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) at 1:500 dilution. Blue: DAPI for nuclear staining.



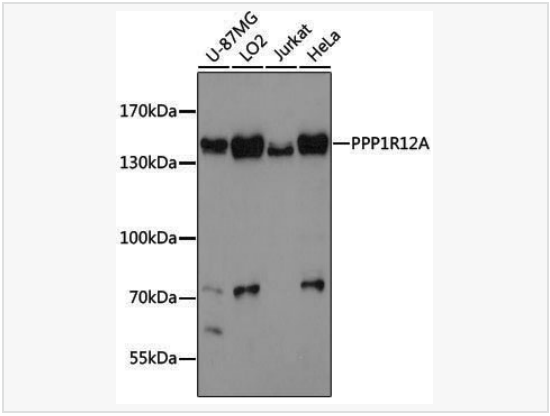
Immunofluorescence analysis of NIH/3T3 cells using PPP1R12A Rabbit pAb (P100242) at dilution of 1:100 (40× lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) at 1:500 dilution. Blue: DAPI for nuclear staining.



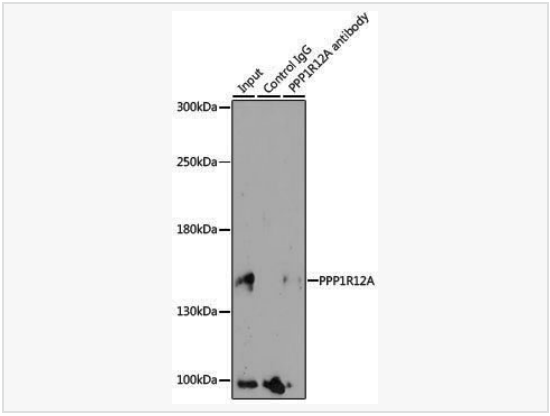
Immunofluorescence analysis of PC-12 cells using PPP1R12A Rabbit pAb (P100242) at dilution of 1:100 (40× lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) at 1:500 dilution. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of U2OS cells using PPP1R12A Rabbit pAb (P100242) at dilution of 1:100 (40× lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) at 1:500 dilution. Blue: DAPI for nuclear staining.



Western blot analysis of various lysates using PPP1R12A Rabbit pAb (P100242) at 1:3,000 dilution.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (LF102) at 1:10,000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Kit.
Exposure time: 90s.



Immunoprecipitation analysis of 200 µg extracts of HeLa cells, using 3 µg PPP1R12A antibody (P100242). Western blot was performed from the immunoprecipitate using PPP1R12A antibody (P100242) at a dilution of 1:1000.