

Product datasheet for **TA380234**

Myosin Phosphatase (PPP1R12A) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IP, WB
Recommended Dilution:	WB,1:500 - 1:2000 IF,1:50 - 1:200 IP,1:50 - 1:100
Reactivity:	Human, Mouse, Rat
Modifications:	Unmodified
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant fusion protein containing a sequence corresponding to amino acids 1-200 of human PPP1R12A (NP_002471.1).
Formulation:	Buffer: PBS with 0.02% sodium azide,50% glycerol,pH7.3.
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	105kDa/109kDa/111kDa/115kDa
Gene Name:	protein phosphatase 1 regulatory subunit 12A
Database Link:	Entrez Gene 4659 Human O14974



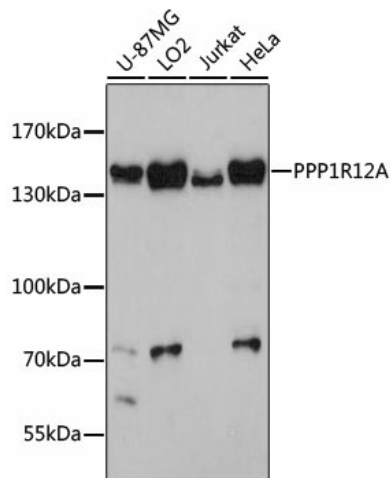
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Background:

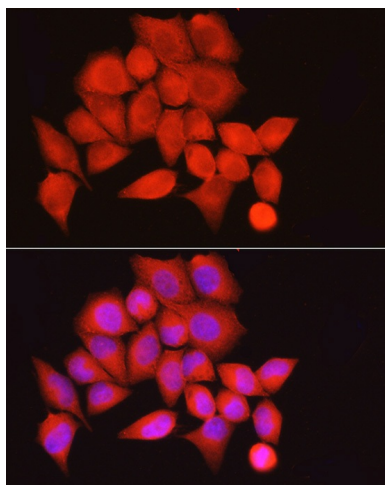
Myosin phosphatase target subunit 1, which is also called the myosin-binding subunit of myosin phosphatase, is one of the subunits of myosin phosphatase. Myosin phosphatase regulates the interaction of actin and myosin downstream of the guanosine triphosphatase Rho. The small guanosine triphosphatase 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.

Synonyms:

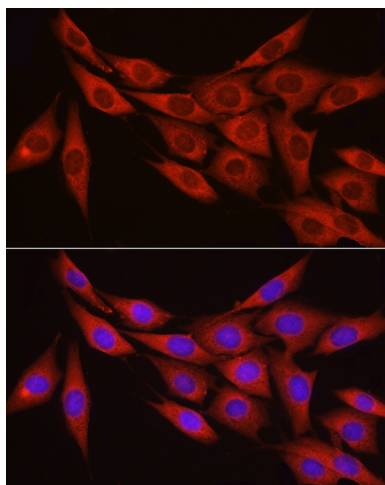
MBS; MGC133042; MYPT1

Product images:

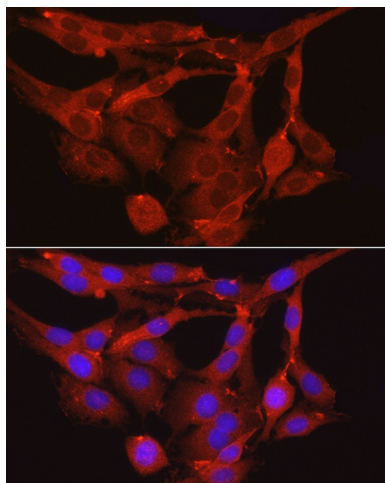
Western blot analysis of extracts of various cell lines, using PPP1R12A antibody (TA380234) at 1:3000 dilution. | Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution. | Lysates/proteins: 25ug per lane. | Blocking buffer: 3% nonfat dry milk in TBST. | Detection: ECL Basic Kit . | Exposure time: 90s.



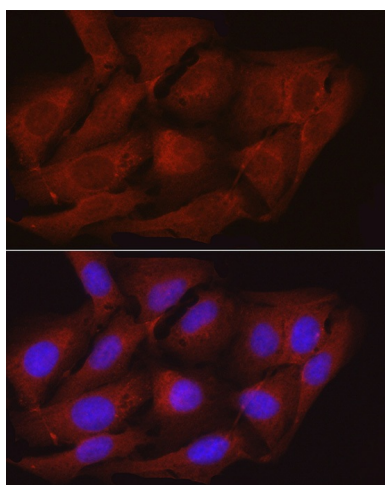
Immunofluorescence analysis of HeLa cells using PPP1R12A Rabbit pAb (TA380234) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



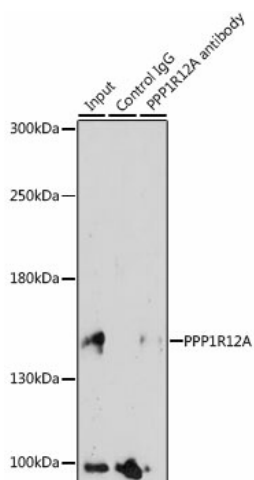
Immunofluorescence analysis of NIH/3T3 cells using PPP1R12A Rabbit pAb (TA380234) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of PC-12 cells using PPP1R12A Rabbit pAb (TA380234) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Immunofluorescence analysis of U2OS cells using PPP1R12A Rabbit pAb (TA380234) at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Immunoprecipitation analysis of 200ug extracts of HeLa cells, using 3 ug PPP1R12A antibody (TA380234). Western blot was performed from the immunoprecipitate using PPP1R12A antibody (TA380234) at a dilution of 1:1000.