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PPP1R12A Rabbit pAb

Catalog No.: A0587

Basic Information

Observed MW
140kDa

Calculated MW
115kDa

Category
Primary antibody

Applications
ELISA,WB,IF/ICC,IP

Cross-Reactivity
Human, Mouse, Rat

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.

Recommended Dilutions

WB	1:500 - 1:2000
IF/ICC	1:50 - 1:200
IP	0.5μg-4μg antibody for 200μg-400μg extracts of whole cells

Immunogen Information

Gene ID
4659

Swiss Prot
O14974

Immunogen
Recombinant fusion protein containing a sequence corresponding to amino acids 1-200 of human PPP1R12A (NP_002471.1).

Synonyms
MBS; GUBS; M130; MYPT1; PPP1R12A

Contact

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Product Information

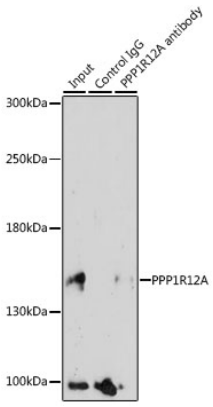
Source
Rabbit

Isotype
IgG

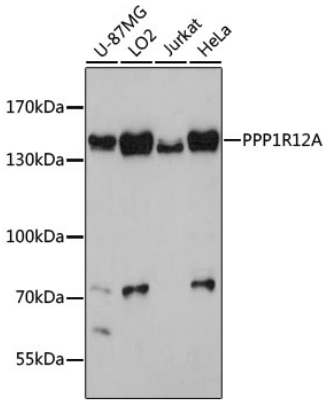
Purification
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS with 0.01% thimerosal,50% glycerol,pH7.3.

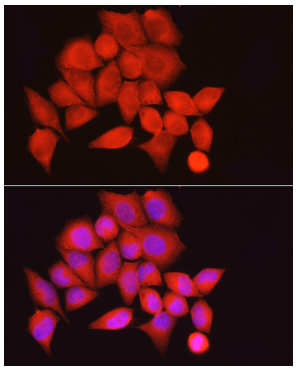
Validation Data



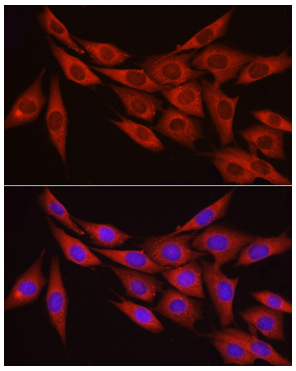
Immunoprecipitation analysis of 200 µg extracts of HeLa cells, using 3 µg PPP1R12A antibody (A0587). Western blot was performed from the immunoprecipitate using PPP1R12A antibody (A0587) at a dilution of 1:1000.



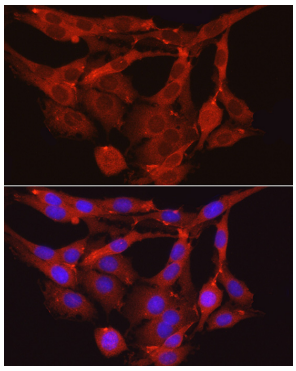
Western blot analysis of various lysates using PPP1R12A Rabbit pAb (A0587) at 1:3000 dilution.
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 90s.



Immunofluorescence analysis of HeLa cells using PPP1R12A Rabbit pAb (A0587) at dilution of 1:100 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.

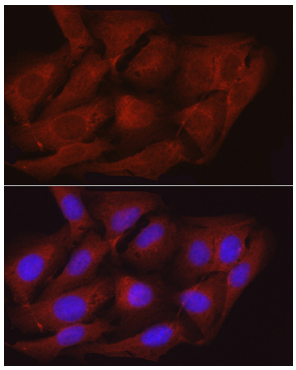


Immunofluorescence analysis of NIH/3T3 cells using PPP1R12A Rabbit pAb (A0587) at dilution of 1:100 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of PC-12 cells using PPP1R12A Rabbit pAb (A0587) at dilution of 1:100 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.

Validation Data



Immunofluorescence analysis of U2OS cells using PPP1R12A Rabbit pAb (A0587) at dilution of 1:100 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.