

Phospho-PPP1R12A-S507 Antibody kit

Catalog No.: RK04097

Basic Information

Observed MW

135kDa

Calculated MW

115kDa

Category

Primary antibody

Recommended Dilutions

AP0769 WB 1:500 - 1:2000**A0587 WB** 1:500 - 1:2000For more information please visit
www.abclonal.com

Product Information

Source Rabbit
Isotype IgG**Purification**


Affinity purification

Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.01% thimerosal, 50% glycerol, pH7.3.

Contact

 | 400-999-6126 | cn.market@abclonal.com.cn | www.abclonal.com.cn

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.

Component

Catalog No.	Product Name	Applications	Cross-Reactivity
AP0769	Phospho-PPP1R12A-S507 Rabbit pAb	ELISA, WB	Human
A0587	PPP1R12A Rabbit pAb	ELISA, WB, IF/ICC, IP	Human, Mouse, Rat

Immunogen Information

Gene ID

4659

Swiss Prot

O14974

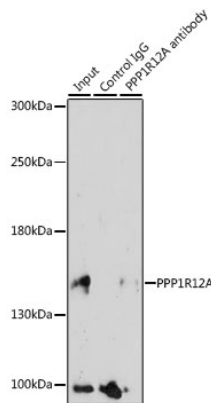
Immunogen

A synthetic phosphorylated peptide around S507 of human PPP1R12A (NP_001137357.1). Recombinant fusion protein containing a sequence corresponding to amino acids 1-200 of human PPP1R12A (NP_002471.1).

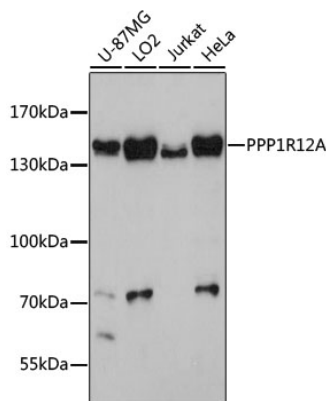
Synonyms

PPP1R12A; M130; MBS; MYPT1; MYPT1

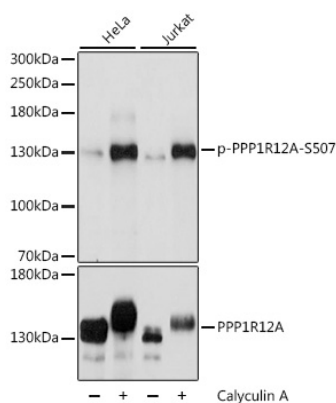
Validation Data



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.

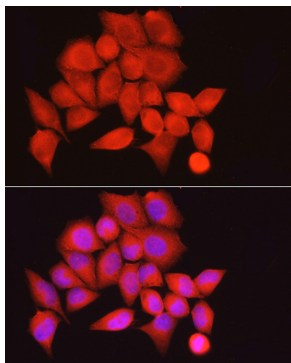


Western blot analysis of various lysates using PPP1R12A Rabbit pAb (A0587) at 1:3000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: 3% nonfat dry milk in TBST. Detection: ECL Basic Kit (RM00020). Exposure time: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

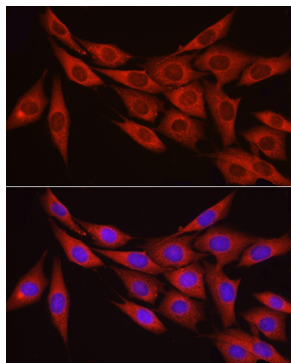


Western blot analysis of various lysates using Phospho-PPP1R12A-S507 Rabbit pAb (AP0769) at 1:2000 dilution or PPP1R12A antibody (A0587). HeLa cells were treated by Calyculin A (100 nM) at 37°C for 30 minutes after serum-starvation overnight. Jurkat cells were treated by Calyculin A (100 nM) at 37°C for 30 minutes. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: 3% BSA. Detection: ECL Basic Kit (RM00020). Exposure time: 1s.

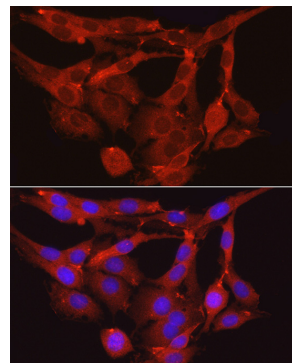
Validation Data



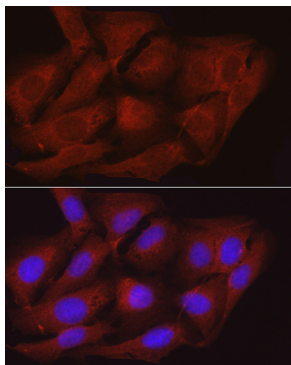
Immunofluorescence analysis of HeLa cells using PPP1R12A Rabbit pAb (A0587) at dilution of 1:100 (40x lens). Secondary antibody: Cy3 Goat Anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



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.



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.