

Product datasheet for **TA380236S**

Myosin Phosphatase (PPP1R12A) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, WB
Recommended Dilution:	WB, 1:500 - 1:2000 ELISA, Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.
Reactivity:	Human
Modifications:	Phospho S507
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Formulation:	Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH 7.3.
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:	115kDa
Gene Name:	protein phosphatase 1 regulatory subunit 12A
Database Link:	Entrez Gene 4659 Human Q14974



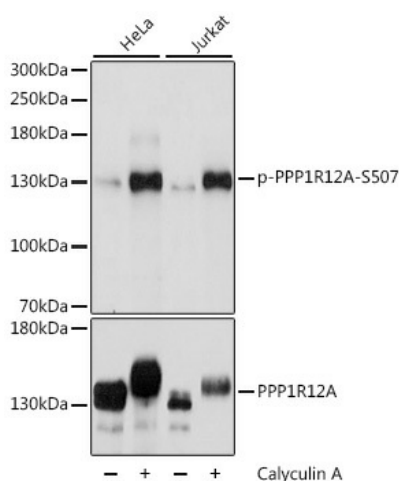
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Background:

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 various lysates using Phospho-PPP1R12A-S507 Rabbit pAb ([TA380236J]) 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-conjugated Goat anti-Rabbit IgG (H+L) at 1:10000 dilution. Lysates/proteins: 25µg per lane. Blocking buffer: 3% BSA. Detection: ECL Basic Kit . Exposure time: 1s.