

## **Product datasheet for TA361236**

## OriGene Technologies, Inc.

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## Myosin Phosphatase (PPP1R12A) Rabbit Polyclonal Antibody

**Product data:** 

**Product Type:** Primary Antibodies

Applications: WB

Reactivity: Human Host: Rabbit

Clonality: Polyclonal

**Immunogen:** The immunogen is a synthetic peptide directed towards the middle region of human

PPP1R12A

**Specificity: Expected reactivity**: Human

Formulation: Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2%

sucrose.

Note that this product is shipped as lyophilized powder to China customers.

**Concentration:** lot specific

Purification: Affinity purified
Conjugation: Unconjugated

**Storage:** For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small

aliquots to prevent freeze-thaw cycles.

**Stability:** Shelf life: one year from despatch.

**Predicted Protein Size:** 113 kDa

**Gene Name:** protein phosphatase 1 regulatory subunit 12A

Database Link: <u>NP 001137357.1</u>

Entrez Gene 4659 Human

O14974



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.

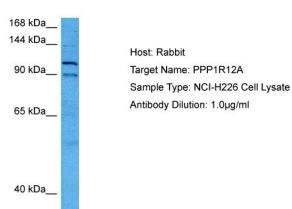
Synonyms: MBS; MGC133042; MYPT1

**Protein Families:** Druggable Genome

**Protein Pathways:** Focal adhesion, Long-term potentiation, Regulation of actin cytoskeleton, Vascular smooth

muscle contraction

## **Product images:**



Host: Rabbit

Target Name: PPP1R12A

Sample Tissue: Human NCI-H226 Whole Cell

lysates

Antibody Dilution: 1ug/ml