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Myosin Phosphatase Rabbit mAb

Catalog No.: A30047

Recombinant

Basic Information

Observed MW
140 kDa

Calculated MW
115 kDa/110 kDa/111 kDa/106 kDa

Category
Monoclonal Antibodies

Applications
WB, IP, IHC-P, ELISA

Cross Reactivity
Human, Monkey

Clone No.
ARC4263

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 1:80000 - 1:500000

IP
0.5 μg - 4 μg antibody for 200 μg - 400 μg extracts of whole cells

IHC-P 1:600 - 1:2400

ELISA
Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements. For high-ratio antibody dilutions (≥1:10000), a sequential dilution method is strongly recommended to ensure measurement accuracy.

Immunogen Information

Gene ID
4659

Swiss-Prot
O14974

Immunogen
This information is considered to be commercially sensitive.

Synonyms
MBS; GUBS; M130; MYPT1; PPP1R12A

Contact

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

Product Information

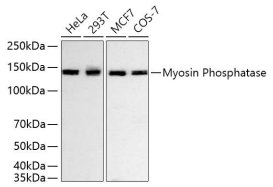
Source
Rabbit

Isotype
IgG

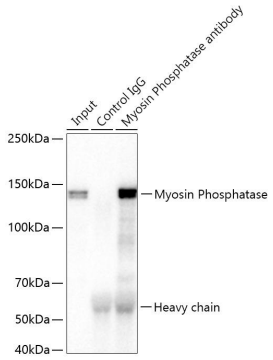
Purity
Affinity purification

Storage
Store at -20℃

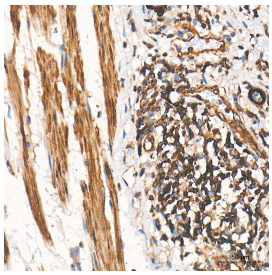
Validation Data



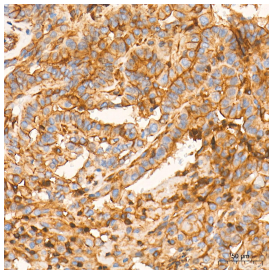
Western blot analysis of various lysates using Myosin Phosphatase Rabbit mAb (A30047) at 1:180000 dilution incubated overnight at 4°C.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1: 10000 dilution.
Lysates/proteins: 25 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 5 s.



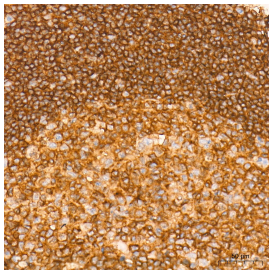
Immunoprecipitation of Myosin Phosphatase from 300 µg extracts of 293T cells was performed using 0.5 µg of Myosin Phosphatase Rabbit mAb (A30047). Rabbit Control IgG (AC005) was used to precipitate the Control IgG sample. IP samples were eluted with 1x Laemmli Buffer. The Input lane represents 10% of the total input. Western blot analysis of immunoprecipitates was conducted using Myosin Phosphatase Rabbit mAb (A30047) at a dilution of 1:5000.



Immunohistochemistry analysis of paraffin-embedded Human esophagus tissue using Myosin Phosphatase Rabbit mAb (A30047) at a dilution of 1:1000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Human thyroid cancer tissue using Myosin Phosphatase Rabbit mAb (A30047) at a dilution of 1:1000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Human tonsil tissue using Myosin Phosphatase Rabbit mAb (A30047) at a dilution of 1:1000 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.