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Product datasheet for AP22981PU-N

Myosin Phosphatase (PPP1R12A) Goat Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC
Recommended Dilution:	**Immunohistochemistry on Paraffin Sections:** 3.75 µg/ml.
Reactivity:	Human, Bovine, Bat, Canine, Equine, Monkey, Mouse, Rat
Host:	Goat
Clonality:	Polyclonal
Immunogen:	Synthetic peptide from human PPP1R12A / MYPT1
Specificity:	This antibody reacts to Myosin Phosphatase, Target Subunit 1 (MYPT1) (PPP1R12A).
Formulation:	Tris saline buffer, pH 7.3 containing 0.5% BSA and 0.02% sodium azide State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Purification:	Immunoaffinity Chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	protein phosphatase 1 regulatory subunit 12A
Database Link:	Entrez Gene 17931 MouseEntrez Gene 116670 RatEntrez Gene 4659 Human O14974

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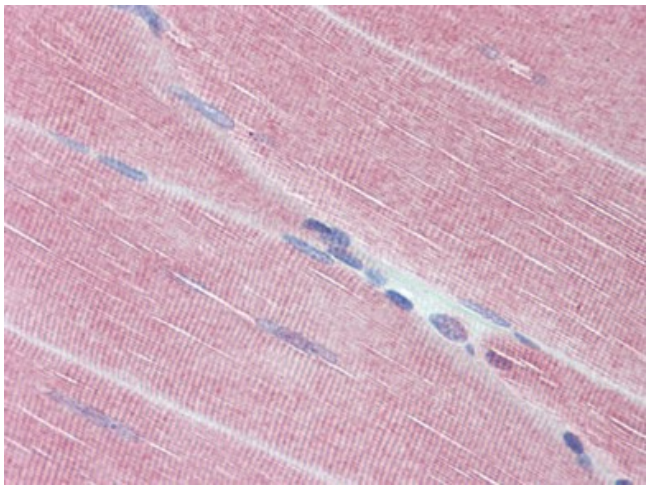
Background: Myosin phosphatase target subunit 1 (MYPT1), which is also called the myosin-binding subunit of myosin phosphatase, is one of the subunits of myosin phosphatase. Myosin phosphatase regulates the interaction of actin and myosin downstream of the guanosine triphosphatase Rho. The small guanosine 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.

Synonyms: MBS

Protein Families: Druggable Genome

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

Product images:



Skeletal muscle, Human: Formalin-Fixed, Paraffin-Embedded (FFPE)