

Product datasheet for RC227493

Myosin Phosphatase (PPP1R12A) (NM_001143885) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Myosin Phosphatase (PPP1R12A) (NM_001143885) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Myosin Phosphatase
Synonyms:	GUBS; M130; MBS; MYPT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC227493 representing NM_001143885 Red=Cloning site Blue=ORF Green=Tags(s)

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Protein Sequence:

>RC227493 representing NM_001143885

Red=Cloning site Green=Tags(s)

MKMADAKQKRNEQLKRWIGSETDLEPPVVKRQTKVKFDDGAVFLAACSSGDTDEVLLKLLHRGADINYAN
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 YTEVLKLLIQAGYDVNIKDYDGWTPHAAAHWGKEEACRILVDNLCDMEMVNKVGQTAQFDVADEDILGYL
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Chromatograms:

https://cdn.origene.com/chromatograms/mk6169_c11.zip

Restriction Sites:

Sgfl-Mlul

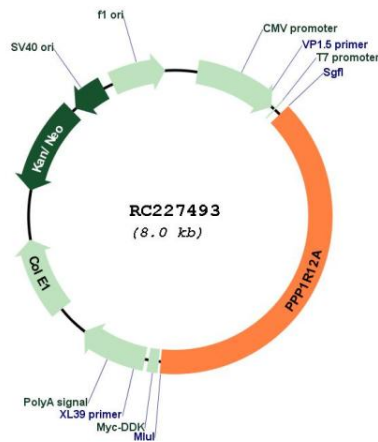
Protein Families: Druggable Genome

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

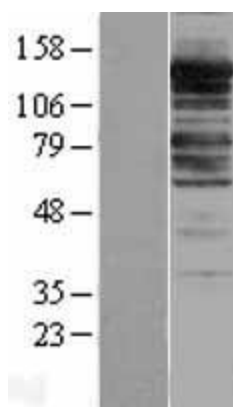
MW: 115.1 kDa

Gene Summary: 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. [provided by RefSeq, Jan 2009]

Product images:



Circular map for RC227493



Western blot validation of overexpression lysate (Cat# [LY428392]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227493 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).