

Product datasheet for PH323540

Myosin Phosphatase (PPP1R12A) (NM_002480) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	PPP1R12A MS Standard C13 and N15-labeled recombinant protein (NP_002471)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC223540
Predicted MW:	117 kDa
Protein Sequence:	>RC223540 representing NM_002480 Red=Cloning site Green=Tags(s)

MKMADAKQKRNEQLKRWIGSETDLEPPVVKRQKTKVKFDDGAVFLAACSSGDTDEVLLKLLHRGADINYAN
VDGLTALHQACIDDNVDMVKFLVENGANINQPDNEGWIPLHAAAACGYLDIAEFLIGQGAHVAVNSEGD
TPLDIAEEEEAMEELLQNEVNRQGVDEAARKEEERIMLRDARQWLNSGHINDVRHAKSSGTLHVAANKG
YTEVLKLLIQAGYDVNIKDYDGTPLHAAAHWGKEEACRILVDNLCMEMVNKVGQTAFDVADEIDILGYL
EELQKKQNLHSEKRDKKSPLIESTANMDNNSQKTFKNKETLIEPEKNASRIESLEQEKVDEEEEGKK
DESSCSSEEDDESEEAETDKTKPLASVTNANTSSTQAAPVAVTTPTVSSGQATPTSPIKKFPTTATK
ISPKEEERKDESPATWRLGLRKTGSYGALAEITASKEGQKEKDTAGVTRSASSPRLSSSLDNKEKEKDSK
GTRLAYVAPTIPRRLASTSDIEEKENRDSSSLRTSSSYTRRKWEDDLKKNSSVNEGSTYHKSCSFGRRQD
DLISSVPSTTSTPTVTSAGLQKSLSSSTSTTKITGSSSAGTQSSTSNRLWAEDSTEKEKDSVPTAV
TIPVAPTIVNAAASTTTLTAGTVSSTTEVRERRRSYLTPVRDEESESQRKARSQRARQSRSTQGV
LTDLQEAETIGRSRSTRTREQENEEKEKEKEKQDKEKQEEKESSETSREDEYKQKYSRTYDETYQRYR
PVSTSSSTTPSSSLSTMSSSLYASSQLNRPNSLVGITSAYSRGITKENEREGEKREEEKEGEDKSQPKSI
RERRRPREKRRSTGVSWFTQSDENEQEQQSDTEEGSNKKTQTDISI SRYETSSTAGDRYDSSLGRSGS
YSYLEERKPYSSRLEKDDSTDFKKLYEQILAENEKKAQLHDTNMLTDLKLQLEKATQRQERFADRSL
EMEKRRERLERRISEMEEELKMLPDLKADNQLKDENGALIRVISKLSKKKKKKLDSRLRPRS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

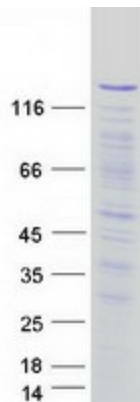
Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.



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Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_002471
RefSeq Size:	4613
RefSeq ORF:	3132
Synonyms:	GUBS; M130; MBS; MYPT1
Locus ID:	4659
UniProt ID:	O14974 , B2RAH5
Cytogenetics:	12q21.2-q21.31
Summary:	<p>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]</p>
Protein Families:	Druggable Genome
Protein Pathways:	Focal adhesion, Long-term potentiation, Regulation of actin cytoskeleton, Vascular smooth muscle contraction

Product images:



Coomassie blue staining of purified PPP1R12A protein (Cat# [TP323540]). The protein was produced from HEK293T cells transfected with PPP1R12A cDNA clone (Cat# [RC223540]) using MegaTran 2.0 (Cat# [TT210002]).