

Recombinant Human PPP1R12A Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. PPP1R12A-2225H Lot. No. (See product label)

SPECIFICATION

Product Overview	PPP1R12A MS Standard C13 and N15-labeled recombinant protein (NP_002471) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	<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.</p>
Molecular Mass	117 kDa

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AA Sequence

MKMADAKQKRNEQLKRWIGSETDLEPPVVKRQKTKVKFDDGAVFLAACSSGDTDE
 VLKLLHRGADINYANVDGLTALHQACIDNNDVMVKFLVENGANINQPDNEGWIPLHA
 AASCGYLDIAEFLIGQGAHVAVNSEGDTPLDIAEEEEAMEELLQNEVNRQGV DIEAA
 RKEEERIMLRDARQWLNSGHINDVRHAKSGGTALHVA AAKGYTEVLKLLIQAGYDV
 NIKDYDGWTPHAAAHWGKEEACRILVDNLCDMEMVNKVGQTAFDVADEDILGYLE
 ELQKKQNLHSEKRDKKSPLIESTANMDNNSQKTFKNKETLIEPEKNASRIESLEQ
 EKVDEEEEGKKDESSCSSEDEEDDSESEAETDKTKPLASVTNANTSSTQAAPVAV
 TTPTVSSGQATPTSPIKKFPTTATKISPKEEERKDESPATWRLGLRKTGSYGALAEIT
 ASKEGQKEKDTAGVTRSASSPRLSSSLDNKEKEKDSKGTRELAYVAPTIPRRLASTSD
 IEEKENRDSSSLRTSSSYTRRKWEDDLKKNSSVNEGSTYHKSCSFGRRQDDLSSS
 VPSTTSTPTVTSAAGLQKSLSSSTSTTTKITTGSSSAGTQSSTSNRLWAEDSTEKEK
 DSVPTAVTIPVAPTVVNA AASTTTLT TTTTAGTVSSTTEVRERRRSYLPVRDEESESQ
 RKARSRQARQSRRSTQGVTLTDLQEA EKTIGRSRSTRTREQENEEKEKEEKEKQDK
 EKQEEKKESETSREDEYKQKYSRTYDETYQRYRPVSTSSSTTPSSSLSTMSSSLYA
 SSQ LNRPNLSLVGITSAYSRGITKENEREKEKREEEKEGEDKSQPKSIRERRRRPREKR
 RSTGVSFWTQDS DENEQEQQSDTEEGSNKKETQTD SISRYETSST SAGDRYDSLL
 GRSGSYSYLEERKPYSSRLEKDDSTDFKKLYEQILAENEK LKAQLHDTNMELTDLKL
 QLEKATQRQERFADRSLLEMEKRERRALERRISEMEEELKMLPDLKADNQRLK DEN
 GALIRVSKLSK KKKKKKLD SRLRPRSTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

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GENE INFORMATION

Gene Name [PPP1R12A protein phosphatase 1 regulatory subunit 12A \[Homo sapiens \(human\) \]](#)

Official Symbol [PPP1R12A](#)

Synonyms [PPP1R12A](#); protein phosphatase 1, regulatory subunit 12A; MYPT1, protein phosphatase 1, regulatory (inhibitor) subunit 12A; protein phosphatase 1 regulatory subunit 12A; M130; MBS; myosin binding subunit; myosin phosphatase targeting subunit 1; myosin phosphatase, target subunit 1; myosin phosphatase-targeting subunit 1; protein phosphatase myosin-binding subunit; protein phosphatase 1, regulatory (inhibitor) subunit 12A; MYPT1; MGC133042;

Gene ID [4659](#)

mRNA Refseq [NM_002480](#)

Protein Refseq [NP_002471](#)

MIM [602021](#)

UniProt ID [O14974](#)

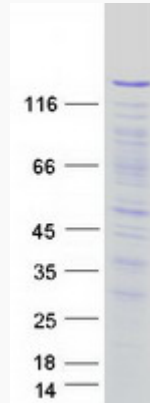
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SDS-PAGE



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