

Product datasheet for **RC230211**

Myosin Phosphatase 2 (PPP1R12B) (NM_001167857) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Myosin Phosphatase 2 (PPP1R12B) (NM_001167857) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Myosin Phosphatase 2
Synonyms:	MYPT2; PP1bp55
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC230211 representing NM_001167857
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGAACTGGAGCACCTAGGAGGGAAGCGGGCAGAGTCGGCGGAATCGGGCGGCAGAGCAGCTTC
 GGCCTGGCGGGCTCGCTGACAGAGCAGGAGCCTGCGGAGCGACGAGGCGGGCGGCAGCCGCTGAC
 CAGGCGCGGGAGCCCCAGGGTCCGCTTCGAGGACGGTGTCTTTCTGGCCGCCTGCTCTAGCGGGGAC
 ACCGACGAGGTGAGAAAGCTTCTGGCAAGAGGTGCTGATCAACACGGTCAACGTGGACGGCTTGACAG
 CCCTGCACCAGGCATGTATTGATGAAAAATTTGGACATGGTGAAGTTTCTGGTGGAGAACAGACCAATGT
 AAACCAGCAAGACAACGAGGGCTGGACACCCCTTCATGCAGCAGCTTCTGTGGCTATCTCAACATAGCA
 GAGTATTTCAATTAATCACGGAGCCAGTGTAGGTATTGCAATAGTGAAGGTGAAGTTCCTCTGACCTTG
 CAGAAGAGCCAGCCATGAAGGATCTTCTTCTGGAGCAAGTAAAGAAGCAAGGAGTTGATCTAGAGCAGTC
 AAGAAAAGAAGAAGAGCAGCAGATGTTGCAGGATGCCCGCAGTGGCTCAACAGTGGGAAAATAGAGGAT
 GTGAGGCAGGCTCGCTCAGGGGCTACAGCCCTTCATGTGGCTGCTGCCAAGGGCTACTCTGAAGTCTCA
 GACTTTTAATTCAGGCTGGCTATGAACTCAATGTTCAAGGATTATGATGGCTGGACTCCCCTCCATGCTGC
 TGCACACTGGGGAGTGAAGGAGGCTTGCTCCATCCTGGCAGAAGCACTTTGTGACATGGATATTCGAAAT
 AAAGTGGCCAGACACCAATTTGATGTGGCTGATGAGGGTCTCGTGGAGCATTTGGAGTTGCTCCAGAAGA
 AGCAGAATGTGCTTGAAGTGAAGAGGAGACACCGAATAAACTCATTGAGTCAGATCTGAACAGCAAGAT
 TCAGAGTGGGTTCTTTAAGAACAAGAGAAGATGCTCTATGAGGAGGAGACACCTAAGTCCCAAGAAATG
 GAGGAAGAAAATAAAGAATCTAGTAGCTCCAGCTCAGAGGAGGAGGAAGTGAAGATGAAGCTTCTGAGT
 CAGAAAAGTGAAGGAGGCAGATAAAAAGCCAGAAGCCTTTGTCAATCATTCCAACCTCTGAAGCAAGAG
 TAGTATCACAGAGCAGATACCAGCACAGCTCAAATACCTTCTCTGCCTTCTGCTAGGAGGTTCTCT
 TCTGGCCTTTTTAACAAGCCAGAAGAGCCAAAGATGAATCTCCTTCTCATGGAGATTGGGACTGAGAA
 AAAGTGGCAGCCACAACATGCTGAGTGAAGTGGCCAATTCAGGGAACCTATAAGGGACCGAGGCTCTTC
 CATCTATCGCTCCTTTCAAGCCCTCGGATTTCTGCTCTACTGGACAACAAGATAAGGTGCAGTTTGGG
 AGGGTATGGGGAAATCCAAGGCAGTTTTTTTTTCCATGAAAATTAATCTTAGGAACAATGAAAATA
 TTTTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC230211 representing NM_001167857
 Red=Cloning site Green=Tags(s)

MAELEHLGGKRAESARMRRAEQLRRWRGSLTEQEPAERRGAGRQPLTRRGSPRVRFEDGAVFLAACSSGD
 TDEVKLLARGADINTVNVLDGLTALHQACIDENLDMVKFLVENRANVNQQDNEGWTPLHAAASCGYLNIA
 EYFINHGASVGI VNSEGEVPSDLAEEPAMKDLLLEQVKKQGVLDLEQSRKEEQMLQDARQWLNSGKIED
 VRQARSGATALHVAAKGYSEVLRLLIQAGYELNVQDYDGTPLHAAAHWGVKEACSI LAEALCDMDIRN
 KLGQTPFDVADEGLVEHLELLQKKQNVLRSEKETRNKLI ESDLNSKIQSGFFKNKEKMLYEEETPKSQEM
 EEENKESSSSSSEEEGEDEASESETEKEADKKPEAFVNHSNSESKSSITEQIPAPAQNTFSASSARRFS
 SGLFNKPEEPKDESPSSWRLGLRKTGSHNMLSEVANSREPIRDRGSSIIYRSSSSPRISALLDNKDKVQFG
 RVWGNKAVFFFHENSILGTNENIF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001167857

ORF Size: 1545 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001167857.1](#), [NP_001161329.1](#)

RefSeq ORF: 1548 bp

Locus ID: 4660

UniProt ID: [O60237](#)

Cytogenetics: 1q32.1

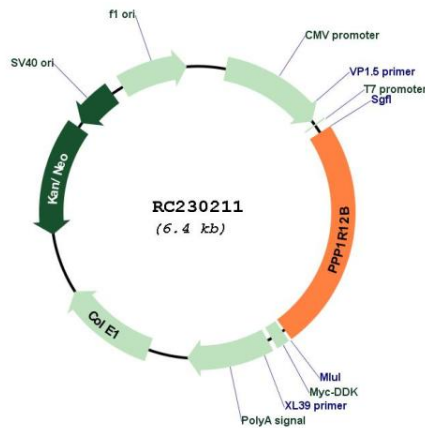
Protein Families: Druggable Genome

Protein Pathways: Vascular smooth muscle contraction

MW: 58 kDa

Gene Summary: Myosin phosphatase is a protein complex comprised of three subunits: a catalytic subunit (PP1c-delta, protein phosphatase 1, catalytic subunit delta), a large regulatory subunit (MYPT, myosin phosphatase target) and small regulatory subunit (sm-M20). Two isoforms of MYPT have been isolated--MYPT1 and MYPT2, the first of which is widely expressed, and the second of which may be specific to heart, skeletal muscle, and brain. Each of the MYPT isoforms functions to bind PP1c-delta and increase phosphatase activity. This locus encodes both MYPT2 and M20. Alternatively spliced transcript variants encoding different isoforms have been identified. Related pseudogenes have been defined on the Y chromosome. [provided by RefSeq, Oct 2011]

Product images:



Circular map for RC230211