

## Product datasheet for RC229974

### Myosin Phosphatase 2 (PPP1R12B) (NM\_001167858) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Myosin Phosphatase 2 (PPP1R12B) (NM_001167858) 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)
ORF Nucleotide Sequence:	>RC229974 representing NM_001167858 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGGAACTGGAGCACCTAGGAGGGAAGCGGGCAGAGTCGGCGCAATGCGGCGGGCAGAGCAGCTTC  
GGCGCTGGCGGGGCTCGCTGACAGAGCAGGAGCCTGCGGAGCGACGAGGCGGGGCGGCAGCCGCTGAC  
CAGGCGCGGGAGCCCCAGGGTCCGCTTCGAGGACGGTGTCTTTCTGGCCGCTGCTCTAGCGGGGAC  
ACCGACGAGGTGAGAAAGCTTCTGGCAAGAGGTGCTGATATCAACACGGTCAACGTGGACGGCTTGACAG  
CCCTGCACCAGGCATGTATTGATGAAAATTTGGACATGGTGAAGTTTCTGGTGGAGAACAGAGCCAATGT  
AAACCAGCAAGACAACGAGGGCTGGACACCCCTTCATGCAGCAGCTTCTGTGGCTATCTCAACATAGCA  
GAGTATTTCAATACACGGAGCCAGTGTAGGTATTGTCAATAGTGAAGTGAAGTTCCTCTGACCTTG  
CAGAAGAGCCAGCCATGAAGGATCTTCTTCTGGAGCAAGTAAAGAAGCAAGGAGTTGATCTAGAGCAGTC  
AAGAAAAGAAGAAGAGCAGCAGATGTTGCAGGATGCCCGCCAGTGGCTCAACAGTGGGAAAATAGAGGAT  
GTGAGGCAGGCTCGCTCAGGGGCTACAGCCCTTCATGTGGCTGCTGCCAAGGGCTACTCTGAAGTCTCA  
GACTTTTAATTCAGGCTGGCTATGAACTCAATGTTTCAGGATTATGATGGCTGGACTCCCTCCATGCTGC  
TGCACACTGGGGAGTGAAGGAGGCTTGTCCATCTGGCAGAAGCACTTTGTGACATGGATATTCGAAAT  
AACTGGGCCAGACACCATTTGATGTGGCTGATGAGGGTCTCGTGGAGCATTGGAGTTGCTCCAGAAGA  
AGCAGAATGTGTTTCAAGTGAAGGAGACACGGAATAAATCATTGAGTCAGATCTGAACAGCAAGAT  
TCAGAGTGGGTTCTTTAAGAACAAGAGAAGATGCTCTATGAGGAGGAGACACCTAAGTCCCAAGAAATG  
GAGGAAGAAAATAAAGAATCTAGTAGCTCCAGCTCAGAGGAGGAGGAAGTGAAGATGAAGCTTCTGAGT  
CAGAAACTGAGAAGGAGGCAGTTCTCTTGGCCTTTT

**ACGCGT**ACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

**Protein Sequence:** >RC229974 representing NM\_001167858  
Red=Cloning site Green=Tags(s)

MAELEHLGGKRAESARMRAEQLRWRGSLTEQEPAERRGAGRQPLTRRGSPRVRFEDGAVFLAACSSGD  
TDEVKLLARGADINTVNV DGLTALHQACIDENLDMVKFLVENRANVNQQDNEGWTPLHAAAACGYLNIA  
EYFINHGASVGI VNSEGEVPSDLAE E PAMKDLLLEQVKKQGV DLEQSRKEEEQQMLQDARQWLN SGKIED  
VRQARSGATALHVA AAKGYSEVLRLLIQAGYELNVQDYD GWTPLHAAAHWGVKEAC SILAEALCDMDIRN  
KLGQTPFDVADEGLVEHLELLQKKQNVLRSEKETRNKLI ESDLNSKI QSGFFK NKEKMLYEEETPKSQEM  
EENKESSSSSSEEEEGE DEASESETEKEAVLFWPF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8056\\_c05.zip](https://cdn.origene.com/chromatograms/mk8056_c05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001167858

**ORF Size:** 1158 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\\_001167858.1](#), [NP\\_001161330.1](#)

**RefSeq ORF:** 1161 bp

**Locus ID:** 4660

**UniProt ID:** [O60237](#)

**Cytogenetics:** 1q32.1

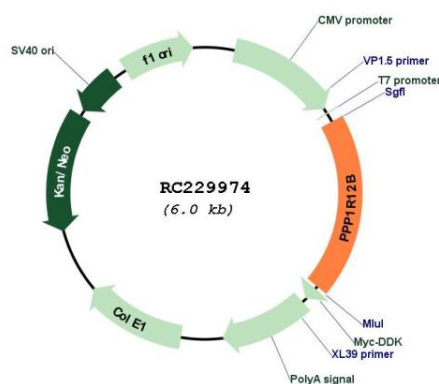
**Protein Families:** Druggable Genome

**Protein Pathways:** Vascular smooth muscle contraction

**MW:** 43.7 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 RC229974