

## Product datasheet for **SC328612**

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

#### Product data:

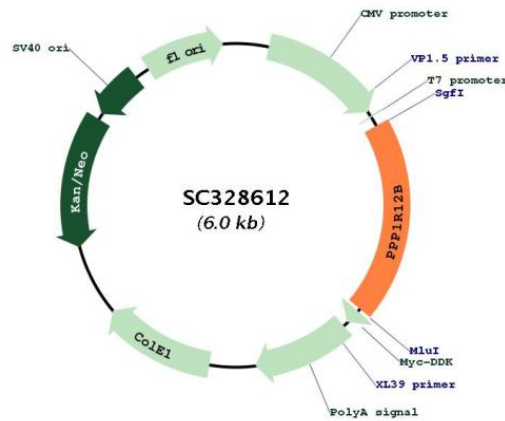
Product Type:	Expression Plasmids
Product Name:	Myosin Phosphatase 2 (PPP1R12B) (NM_001167858) Human Untagged Clone
Tag:	Tag Free
Symbol:	PPP1R12B
Synonyms:	MYPT2; PP1bp55
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC328612 representing NM_001167858. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTT TAGTGAACCGTCAGAATTTTGT AATACGACTACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCC GCGATCGCC
ATGGCGGAACTGGAGCACCTAGGAGGGAAGCGGGCAGAGTCGGCGCAATGCGGCGGGCAGAGCAGCTT
CGGCGCTGGCGGGCTCGCTGACAGAGCAGGAGCCTGCGGAGCGACGAGGCGGGGGCGGACGCCCTG
ACCAGGCGCGGGAGCCCCAGGGTCCGCTTCGAGGACGGTGTCTTTCTGGCCGCTGCTCTAGCGGG
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ATAGAGGATGTGAGGCAGGCTCGCTCAGGGGCTACAGCCCTTCATGTGGCTGCTGCCAAGGGCTACTCT
GAAGTCTCAGACTTTTAATTCAGGCTGGCTATGAACTCAATGTTTCAGGATTATGATGGCTGGACTCCC
CTCCATGCTGCTGCACACTGGGGAGTGAAGGAGGCTTGTCCATCCTGGCAGAAGCACTTTGTGACATG
GATATTCGAAATAAACTGGGCCAGACACCATTTGATGTGGCTGATGAGGGTCTCGTGAGCATTGGAG
TTGCTCCAGAAGAAGCAGAATGTGCTTCGAAGTAAAAGGAGACACGGAATAAACTCATTGAGTCAGAT
CTGAACAGCAAGATTCAGAGTGGGTTCTTTAAGAACAAAGAGAAGATGCTCTATGAGGAGGAGACACCT
AAGTCCCAGAAATGGAGGAAGAAAATAAAGAATCTAGTAGCTCCAGCTCAGAGGAGGAGGAAGGTGAA
GATGAAGCTTCTGAGTCAGAAACTGAGAAGGAGGAGTCTCTTCTGGCCTTTTAA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Restriction Sites: SgfI-MluI



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**Plasmid Map:**


**ACCN:** NM\_001167858

**Insert Size:** 1161 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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](#)

**RefSeq Size:** 1751 bp

**RefSeq ORF:** 1161 bp

**Locus ID:** 4660

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

**Cytogenetics:** 1q32.1  
**Protein Families:** Druggable Genome  
**Protein Pathways:** Vascular smooth muscle contraction

**MW:** 43.3 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 MYTP2 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]

Transcript Variant: This variant (6) differs in the 3' coding region and 3' UTR, compared to variant 8. The resulting isoform (f) has a distinct C-terminus and is shorter than isoform h.