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Product datasheet for RG224579

Myosin Phosphatase 2 (PPP1R12B) (NM_032103) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Myosin Phosphatase 2 (PPP1R12B) (NM_032103) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PPP1R12B
Synonyms:	MYPT2; PP1bp55
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG224579 representing NM_032103
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGACAAAAATGAGAATGAAGAAGCAGATTTGGATGAGCAGTCCTCTAAGAGGCTGTCCATCCGAGAGA
GGAGGCGGCCCAAGGAACGACGAAGAGGCACAGGCATCAATTTCTGGACAAAGGATGAGGATGAAACTGA
TGGCTCTGAAGAGGTCAAAGAAACGTGGCATGAAAGACTTTCTAGGTTGGAATCGGGAGGTAGTAATCCT
ACAACCAGTGATTCTTACGGTGACCGGGCTTCAGCAAGAGCCCGTCGGGAGGCCCGGGAGGCCCGCCTAG
CCACCCTGACCAGCCGTGTAGAAGAAGACAGCAACAGAGATTATAAAAAACTCTATGAGAGTGCTCTGAC
TGAAAACCAAAAACTGAAAACAAAACTTCAGGAAGCCCAGCTAGAGCTAGCAGATATAAAGTCCAAGCTT
GAGAAGGTGGCCCAGCAGAAACAAGAAAAGACCTCTGACCGATCATCAGTGCTGGAGATGGAGAAACGGG
AGAGGCGAGCCTTGGAGCGCAAAATGTCAGAAATGGAGGAAGAAATGAAGGTGTTAACAGAACTGAAATC
CGACAACCAGAGGCTGAAAGATGAAAATGGTGCCCTCATCAGAGTCATCAGCAAACTGTCCAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG224579 representing NM_032103
Red=Cloning site Green=Tags(s)

MDKNENEEADLDEQSSKRLSIRERRRPKERRRGTGINFWTKDEDETDGSEEVKETWHERLSRLESGGSNP
TTSDSYGDRASARARREAREARLATLTSRVEEDSNRDYKKLYESALTENQKLKTKLQEAQLELADIKSKL
EKVAQQKQEKTSDRSSVLEMEKRERRALERKMSEMEEEMKVLTELKSDNQRLKDENGALIRVISKLSK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

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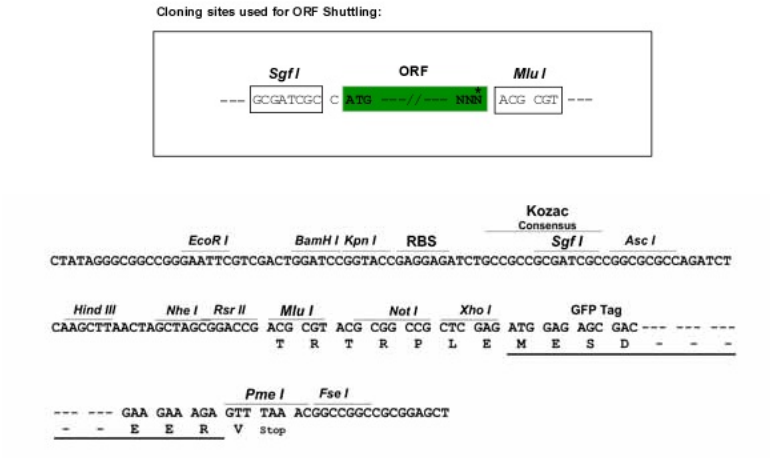
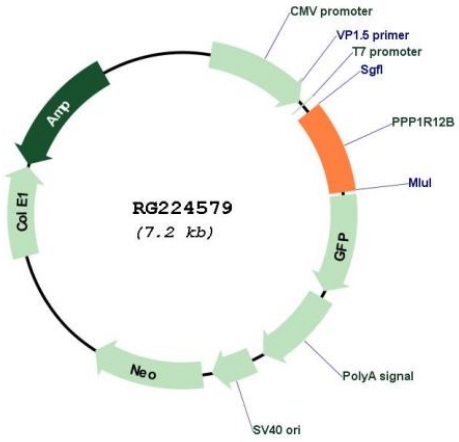
Cloning Scheme:



Plasmid Map:



ACCN:	NM_032103
ORF Size:	624 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_032103.3
RefSeq Size:	9463 bp
RefSeq ORF:	627 bp
Locus ID:	4660
UniProt ID:	O60237
Cytogenetics:	1q32.1
Protein Families:	Druggable Genome
Protein Pathways:	Vascular smooth muscle contraction
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]