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Product datasheet for SC109475

Myosin Phosphatase 2 (PPP1R12B) (NM_032104) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Myosin Phosphatase 2 (PPP1R12B) (NM_032104) Human Untagged Clone
Tag:	Tag Free
Symbol:	Myosin Phosphatase 2
Synonyms:	MYPT2; PP1bp55
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC109475 sequence for NM_032104 edited (data generated by NextGen Sequencing)

ATGGACAAAAATGAGAATGAAGAAGCAGATTTGGATGAGCAGTCCTCTAAGAGGCTGTCC
ATCCGAGAGAGGAGGCGGCCCAAGGAACGACGAAGAGGCACAGGCATCAATTTCTGGACA
AAGGATGAGGATGAAACTGATGGCTCTGAAGAGGTCAAAGAAACGTGGCATGAAAGACTT
TCTAGGTTGGAATCGGGAGGTAGTAATCCTACAACCAGTGATTCTTACGGTGACCGGGCT
TCAGCAAGAGCCCGTCGGGAGGCCCGGGAGGCCCGCCTAGCCACCCTGACCAGCCGTGTA
GAAGAAGACAGCAACAGAGATTATAAAAAACTCTATGAGAGTGCTCTGACTGAAAACCAA
AAACTGAAAACAAAACTTCAGGAAGCCCAGCTAGAGCTAGCAGATATAAAGTCCAAGCTT
GAGAAGGTGGCCCAGCAGAAACAAGAAAAGACCTCTGACCGATCATCAGTGCTGGAGATG
GAGAAACGGGAGAGGCGAGCCTTGGAGCGCAAAATGTCAGAAATGGAGGAAGAAATGAAG
AACCTCCACCAGCTAAAACAGATTCAAACCTTGAAGCAGATGAACGAGCAACTGCAGGCT
GAGAACAGGGCCCTGACCCGAGTGGTGGCCAGACTCTCGGAGTCCATCGAGTCCTCGGAC
ACCCAGGAGCTCTAG

Clone variation with respect to NM_032104.2

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5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_032104 unedited
GTAATACGACTCACTATAGGGCGGCCCGCGATTCGGCACGAGGGACAAATAGATTTTCAG
TCCCTGATTCTGAGAGTTCAGAGACTACCACAAACACTACAACTGCAAAGGAAATGGACA
AAAATGAGAATGAAGAAGCAGATTTGGATGAGCAGTCCTCTAAGAGGCTGTCCATCCGAG
AGAGGAGGCGGCCCAAGGAACGACGAAGAGGCACAGGCATCAATTTCTGGACAAAGGATG
AGGATGAAACTGATGGCTCTGAAGAGGTCAAAGAAACGTGGCATGAAAGACTTTCTAGGT
TGGAATCGGGAGGTAGTAATCCTACAACCAGTGATTCTTACGGTGACCGGGCTTCAGCAA
GAGCCCGTCGGGAGGCCCGGGAGGCCCGCCTAGCCACCCTGACCAGCCGTGTAGAAGAAG
ACAGCAACAGAGATTATAAAAAACTCTATGAGAGTGCTCTGACTGAAAACCAAAAACTGA
AAACAAAACTTCAGGAAGCCCAGCTAGAGCTAGCAGATATAAAGTCCAAGCTTGAGAAGG
TGGCCCAGCAGAAACAAGAAAAGACCTCTGACCGATCATCAGTGCTGGAGATGGAGAAAC
GGGAGAGGCGAGCCTTGGAGCGCAAAATGTCAGAAATGGAGGAAGAAATGAAGAACCTCC
ACCAGCTAAAACAGATTCAAACCTTGAAGCAGATGAACGAGCAACTGCAGGCTGAGAACA
GGGCCCTGACCCGAGTGGTGGCCAGACTCTCNGAGTCCATCGAGTCCTCGGACACCCAGG
AGCTCTAGTTCTTGCCCCTACNTCTCACTCACTTCCCTCCTNCACTACTCCAGGTGGTAA
CAGAAACTGAATCCGACACCAGAGCTGAANGAGAAAATGGTGCCCTCATCAGAGTATCAG
CAACTGTCCAGTAGGCTAGGCTCAGATTATGAAGAAGA
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Restriction Sites: NotI-NotI

ACCN: NM_032104

Insert Size: 3260 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).

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_032104.1, NP_115287.1

RefSeq Size: 2227 bp

RefSeq ORF: 675 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]
Transcript Variant: This variant (4) differs in the 5' UTR, lacks a portion of the 5' coding region, and initiates translation at a downstream start codon, compared to variant 8. The encoded isoform (d, also known as sm-M20 or hHS-M21 B) is shorter than isoform h.