

Product datasheet for **MG224755**

Prdm6 (NM_001033281) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Prdm6 (NM_001033281) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Prdm6
Synonyms:	Gm92; PRISM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG224755 representing NM_001033281
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCTGAAGCGGGGATCCCGCGGCTCGGCCTTCTCAAAGTGAGCCAGCTTACCTGCAGACTGGC
 AGCAACTTCCCGCACGAGGCGGCGGCGGCCGCTCAAAGCCAGTGGCGCCGCTCGCCCTGGG
 CGCCCCACAGCCCTGCAGCCACCGCCACCGCCGCGCTCTCTCCGAGCGCCGAGCCTCTCCG
 GACGGCTGCGGCGCGGCTGCCTCGCTCTCGTCCACCCGGCTCCTTCTCCACCTCTGCCTTCTG
 CCTTCTCGCGCCAGCCGCGGCCGCGCTGCGCTGGCGGTCTCTCGGCCCTGCCGGTGGCACAGAT
 GCCGGTGTTCGCTCTAGCTGCTGCTGTGGCCGCGGAGCCACTGCCCCAAAGGACCTGTGCCTC
 GCGCCTCCGCGGCCCGGGCCGCAAGTGCGGCGGCGGTGGCAGCGTGGGGACGGCCGTGGCG
 TCCACGTTTCCGCTGCAGCGCGGAGGAGCTGGACTATTACCTGTACGGGCAGCAGCGCATGAAATCAT
 CCCGCTCAACCAGCACACCAGCGACCCCAACAACGTTGCGATATGTGCGCGGACAACCGTAACGGGGAG
 TGCCCATGCACGGGCCACTGCACTCGCTGCGCCGGCTCGTGGGACCAGCAGCGCGGCCGCGCTGCAC
 CCCCAGCGGAGCTGCCGAGTGGCTTCGGGATCTGCCGCGGGAGGTTGCCTGTGTACCAGCACGGTGCC
 AGGCCTGGCGTATGGCATCTGTGCCGCGCAGAGGATCCAGCAGGGCACCTGGATTGGGCCCTTCCAGGGC
 GTGCTTGTCCCGGAGAAAGTGCAGACCGGCGTAGTGAGGAACACGCAGCATCTCTGGGAGATATATG
 ACCAAGATGGGACACTTCAGCACTTTATTGATGGTGGGGAGCCTAGTAAGTCGAGCTGGATGAGGTATAT
 CCGATGTGCAAGGCACTGTGGAGAACAGAATCTAACAGTAGTTCAGTACAGGTGCAATATATTCTACCGA
 GCCTGTATAGATATCCCGAGGGCACCGAGCTCCTGGTGTGTTACAATGACAGCTATACATCTTTCTTTG
 GGATCCCTTTACAATGCATTGCCCAGGATGAAAACCTTGAACCTCCCTTCCACCGTAATGGAAGCCATGTG
 CGGACAGGATGCCCTGCAGCCCTTCAACAAAAGCAGCAAGCTTTCTCCCTCGGGCCAGCAGCGCTCCGTG
 GTTTTCCACAGACTCCCTGCAGCAGGAATTTCTCCCTTGGATAAATCTGGGCCATGGAGGCAGGAT
 TTAACCAATCAACGTGAAGAATCAGAGGGTCTGGCGAGCCAACTCAACCAGCCAGCTGCACTCGGA
 GTTCAGCGACTGGCATCTCTGGAAGTGCGGCCAGTGCTTAAAGACTTTCACGCAGCGCATTCTCCTGCAG
 ATGCATGTGTGCACGCAGAACCCCGACAGACCCTACCAGTGTGGCCACTGCTCACAGTCTTTTCCAGC
 CGTCAGAACTGAGGAACACGTAGTCACTCACTCCAGTACCAGCCCTTCAAGTGCGGCTACTGTGGCCG
 TGCGTTTCCGGAGCCACCCTCAACAACCACATCCGGACCCACACTGGAGAAAAGCCCTTCAAGTGC
 GAGAGGTGCGAAAGGAGCTTCAACCAGGCCAGCAGCTGAGTCGACACCAGCGCATGCCAATGAGTGCA
 AGCCGATAACCGAGAGCCCGGAATCAATCGAAGTGGAT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG224755 representing NM_001033281
 Red=Cloning site Green=Tags(s)

MLKPGDPGGS AFLKVDPAYLQHWQQLFPHGGGGGPKASGAALALGAPQPLQPPPPPPPPPERAEPPP
 DGLRPRPASLSSTPAPSSTSASSASSCAAAAAAALAGLSALPVAQMPVFAPLAAAAVAEPLPPKDLCL
 GASAGPGPAKCGGGGSGVDGRGVPRFRCSAEELDYLYGQQRMEI IPLNQHTSDPNRCDMCADNRNGE
 CPMHGPHSLRRLVGTSSAAAAAPPPELPEWLRDLPREVCLCTSTVPGLAYGICAAQRIQQGTWIGPFQ
 VLLSPEKVQTVVRNTQHLWEIYDQDGLQHFIDGGEPSKSSWMRYIRCARHCQEQLTVVQYRSNIFYR
 ACIDIPRGTELLVWYNDYSFSGIPLQCIAQDENLNPSTVMEAMCRQDALQPFNKSSKLSPSGQQRSV
 VFPQTCSRNFSLLDKSGPMEAGFNQINVKQRVLA SPTSTSQLHSEFSDWHLWKCGQCFTFTQRILLQ
 MHVCTQNPDRPYQCGHCSQSFSQPSLRNHVVTHSSDRPFKCGYCGRAFAGATTLNNHIRHTHTGEKPFK
 ERCERSFTQATQLSRHQMPNECKPITESPESIEVD

TRTRPLE – GFP Tag – V

Restriction Sites:

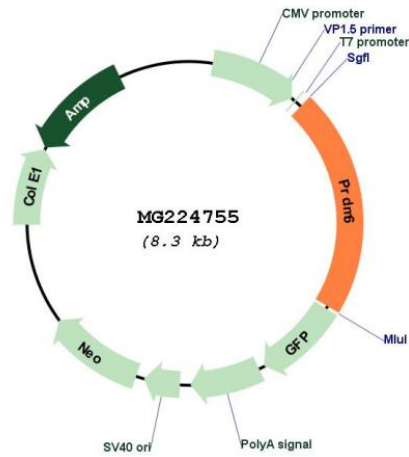
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001033281

ORF Size: 1788 bp

OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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:	<u>NM_001033281.3, NP_001028453.1</u>
RefSeq Size:	2601 bp
RefSeq ORF:	1791 bp
Locus ID:	225518
UniProt ID:	<u>Q3UZD5</u>
Cytogenetics:	18 D1

Gene Summary:

Putative histone methyltransferase that acts as a transcriptional repressor of smooth muscle gene expression (PubMed:16537907, PubMed:17662997). Promotes the transition from differentiated to proliferative smooth muscle by suppressing differentiation and maintaining the proliferative potential of vascular smooth muscle cells (PubMed:27181681, PubMed:16537907, PubMed:17662997). Also plays a role in endothelial cells by inhibiting endothelial cell proliferation, survival and differentiation. It is unclear whether it has histone methyltransferase activity in vivo. According to some authors, it does not act as a histone methyltransferase by itself and represses transcription by recruiting EHMT2/G9a (PubMed:16537907). According to others, it possesses histone methyltransferase activity when associated with other proteins and specifically methylates 'Lys-20' of histone H4 in vitro. 'Lys-20' methylation represents a specific tag for epigenetic transcriptional repression (PubMed:17662997).[UniProtKB/Swiss-Prot Function]