

Product datasheet for **RG234662**

MBD1 (NM_001204136) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MBD1 (NM_001204136) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MBD1
Synonyms:	CXXC3; PCM1; RFT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>RG234662 representing NM_001204136
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGCATCGCC

ATGGCTGAGGACTGGCTGGACTGCCCGCCCTGGCCCTGGCTGGAAGCGCCGCAAGTCTTTCGCAAGT
CAGGGGCCACCTGTGGACGCTCAGACACCTATTACCAGAGCCCCACAGGAGACAGGATCCGAAGCAAAGT
TGAGCTGACTCGATACCTGGGCCCTGCGTGTGATCTCACCTCTTCGACTTCAAACAAGGATCTTGTGC
TATCCAGCCCCCAAGGCCATCCCGTGGCGGTTGCCAGCAAGAAGCGAAAGAAGCCTTCAAGGCCAGCCA
AGACTCGAAACGTCAGGTTGGACCCCAGAGTGGTGGAGTTCAGGAAGGAGGCCCGAGGGATGAGACCAA
GGCTGACACTGACACAGCCCCAGCTTCATTCCCTGCTCCTGGGTGCTGTGAGAACTGTGGAATCAGCTTC
TCAGGGGATGGCACCACAAAGGCAGCGGCTCAAACGTTGTCAAAGACTGTCGAGCACAGAGAATTGCCT
TCAACCGGAACAGAGAATGTTAAGCGTGTGGGCTGTGGGGAGTGTGCAGCCTGCCAGGTAACAGAAGA
CTGTGGGGCTGCTCCACCTGCCTCCTGCAGCTGCCCCATGATGTGGCATCGGGGCTGTTCTGCAAGTGT
GAACGGAGACGCTGCCTCCGGATTGTGGAAGGAGCCGAGGGTGTGGAGTATGCCGGGGCTGTGACACCC
AAGAGGATTGTGGCCATTGCCCATCTGCCTTCGCCCTCCCCGCCCTGGTCTCAGGCGCCAGTGGAAATG
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ACCCAGAGCCCTGGCCCCCTCGCCACCTGCCGAGTTCATCTATTACTGTGTAGACGAGGACGAGCTACA
GCCCTACACGAACCGCCGGCAGAACCAGCAAGTGCAGGGCTGTGCAGCCTGCCTACGGCGGATGGACTGT
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GAAGCAAGAGCCACCTGACCCAGAGGAGGACAAGGAGGAGAACAAGGATGATTCTGCCTCCAAATTGGCC
CCAGAGGAAGAGGCAGGAGGGGCTGGCACACCCGTGATCACGGAGATTTTCAGCCTGGGTGGAACCCGCT
TCCGAGATACAGCAGTCTGGTTGCCAAGTCTGCAGGGCAGGCACTCGGGAAGGGAAGATGGATGTAAGT
GTGGGAGACCGAGACACAGTGGAGCCCACGAGCACGAGCTGGAACCCACGAGGATGGCCTGGAACCCAT
GTCAGTCTCTACCACCTCCAGCTTCGATGATGTGGGTGTCTGCAGAAGAAGCTGGTGCCTTCTCTCAC
AGAGT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG234662 representing NM_001204136
 Red=Cloning site Green=Tags(s)

MAEDWLDPCALGPGWKREVFVKSGATCGRSDTYYSPTGDRIRSKVELTRYLGPACDLTLDFDKQGI
 YPAPKAHPVAVASKRRKPSRPAKTRKRQVGPQSGEVRKEAPRDETKADTDTAPASFPAPGCCENCGISF
 SGDGTQRQLKTLCKDCRAQRIAFNREQRMFKRVGCGECAACQVTEDCGACSTCLLQLPHDVASGLFCKK
 ERRRLRIVERSRGCGVCRGCQTQEDCGHCPICLRPPRPLRRQWKCVQRRCLRGKHARRKGGCDKMAA
 RRRPGAQPLPPPPPSQSEPEPEPHRALAPSPPAEFIIYCVDEDELQPYTNRRQNRKCGACAACLRMDC
 GRCDFCCDKPKFGGSNQKRQKCRWRQCLQFAMKRLLPVWSESEDGAGSPPPYRRRKRPSARRHHLGPT
 LKPTLATRTAQPDHTQAPTKQEAGGGFVLPPTGDLVFLREGASSPVQVPGPVAASTEALLQEAQCSGLS
 WYVALPQVKQEKADTQDEWTPGTAVLTPVLVPGCPSKAVDPGLPSVKQEPDPPEEDKEENKDDSSASKLA
 PEEEAGGAGTPVITEIFSLGGTRFRDTAVWLPQLQGRHSGREDGCKVWETEDTVEPTSTSWNPRGWPGTH
 VLSPPPASMMWVSCRSSWCPSSQS

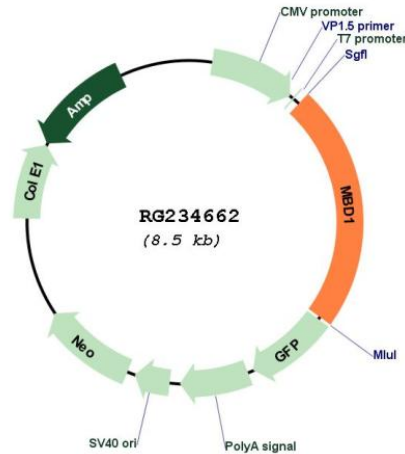
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: NM_001204136

ORF Size: 1965 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_001204136.1](#), [NP_001191065.1](#)

RefSeq Size: 3207 bp

RefSeq ORF: 1968 bp

Locus ID: 4152

UniProt ID: [Q9UIS9](#)

Cytogenetics: 18q21.1

Protein Families: Druggable Genome, Transcription Factors

Gene Summary: The protein encoded by this gene is a member of a family of nuclear proteins related by the presence of a methyl-CpG binding domain (MBD). These proteins are capable of binding specifically to methylated DNA, and some members can also repress transcription from methylated gene promoters. This protein contains multiple domains: MBD at the N-terminus that functions both in binding to methylated DNA and in protein interactions; several CXXC-type zinc finger domains that mediate binding to non-methylated CpG dinucleotides; transcriptional repression domain (TRD) at the C-terminus that is involved in transcription repression and in protein interactions. Numerous alternatively spliced transcript variants encoding different isoforms have been noted for this gene.[provided by RefSeq, Feb 2011]