

Product datasheet for **MG209180**

Mbd1 (BC069837) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mbd1 (BC069837) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mbd1
Synonyms:	PCM1, Cxxc3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209180 representing BC069837
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTGAGTCTGGCAGGACTGCCAGCCTGGGCCCTGGCTGGAACGCCGAGAGTCTTTGCAAAGT
 CAGGGGCTCGTTTGGACGCTCAGACATCTATTACCAGAGCCCCACAGGAGAAAAGATCCGAAGCAAAGT
 TGAGCTGACTCGGTACTTGGGCCCTGCATGTGATCTTACCCTGTTTGACTTCAGACAAGGCACCTTATGC
 CATCCCATTCCCAAGACTCATCCCTTGGCTGTCCCCAGCAAGAAGAAAAAGAACCTTCTAAACCAGCCA
 AGACTAAGAAACAGCAGGTTGGGCTGCAGCAAGTGAAGTTCAGGAGAGAGACTCCGCAGGGGGAATAAA
 GGCCCTACTGCCACAGCTCTAGCTTCACTATCTGTGTCTGCATCTGCGTCTTCGCTGCATCTGCATCT
 GCGTCTTCGTTTGCATCTGCATCTGCATCTGCGTCTTACGTGCACCTGTGTGCTGTGAGAATTGTGGAA
 TCCACTTTTCATGGGATGGTGTCAAAGGCAGAGACTTAAGACGTTGTGCAAAGATTGTCGAGCACAGAG
 AATCGCCTTCAACCGCAACAGAGAATGTTTAAGCGAGTGGCTGTGGGACTGTGCAGCTTGCCTGGTG
 AAAGAGGACTGTGGGGTGTGCTCCACCTGTGCGCTGCAACTGCCAGTGTGGCCTCAGGGCTTACT
 GCAAGTGTGAGCGGAGACGATGCCTGCGGATTATGGAGAAGAGCCGAGGGTGTGGCGTGTGTCGGGGTTG
 TCAGACCCAAGAGGACTGTGGCCATTGCTGCATCTGTCTTCGCTCTCCCCGCCCTGGTCTCAAGCGCCAG
 TGGAGGTGTTTGAACGGCGCTGTTTTTGGGGTAAACGTATTCTAGTAAGAGAGGCTCGAAGGTAGCGT
 CTCAGCGTCACTCCCAAGCCCGCCACTTCTCCACATCTGCATCACAGTACACAGAGCCACAGAGCT
 GCACATCAGCGACATAGCACCCACATCACCTGCTGAGTTCATCTATTACTGTGTAGACGAGGACGAGGAC
 GAGCTAAAGCGGCTGCTGCCAGTGTGGTCAAGGCTGAGGCTGGGGAGGAGCAGGATTGCGTCCATATCAGA
 CCCATCAGACCCATCAAAGAGGCTGCTTCTGCTCGACAACCTCAACTGAGCTCTCCCTAAAGGCCCC
 TTGGGCTGTGGTACAGCACACCAGGCCCTGTCCGAGATTCAAGAAAGCAGCAAGCAGGTAGAGGCTCT
 GTACTGCCCCAGCCTGACACAGACTTTGTGTTTTTACAAGAGGGTACCAGCAGTGCATGCAGATGCCTG
 GCACTGCTGCAGCTTGCACAGAAGTCCCAGTACAGGCGGCCAGTGTCTGCCCCGAGCTGGGTTGTGGC
 CTTACCCAGGTGAAGCAAGAGACGGCAGATGCTCCAGAGGAGTGGACAGCAGTACGACCTTCTGACT
 TCCTCCACGCTGCAGTCTGGCTTCCCTAGCAAGGCTGCAGATCCAGACCTTTCACCTGTGAAACAAGAGC
 CCCCTGGCCCTGAAGAGGATGGAGAAGAGAAAAAAGATGATGTCTCTGAAACAACCCAGCAGAGGAGAT
 AGGAGGGGTTGGCAGCCAGTATCACGGAGATTTTCAGCCTGGGTGGAACCCGCTCCGAGATGCAGAA
 GCCTGTTGCCAAGGCTACATAAACTGTTAGCAGTAAATGAAAAAGAGTATTTTACTGAGCTGCAGTTGA
 AAGAAGAAGTTTTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG209180 representing BC069837
 Red=Cloning site Green=Tags(s)

MAESWQDCPALGPGWKRRESFRKSGASFGRSDIYQSPTGEKIRSKVELTRYLGPACDLTLDFRQGTLC
 HPKPKTHPLAVPSKSKKKKPSKPAKTKKQVGLQRSEVRRETPQGEYKAPTATALASLSVSASASSASAS
 ASSFASASASASSRAPVCCENGIFSWDGVKRQRLKTLCKDCRAQRIAFNREQRMFKRVGCGDCAACLV
 KEDCGVSTCRLQLPSDVASGLYCKCERRRCLRIMEKSRGCVCRGCTQEDCGHCCICLRSRPLKQ
 WRCLQRRCFWGRDSSKRGSKVASQRHSQAPLPPHPASQYTELHISDIAPTSPAEIFYYCVDEDED
 ELKRLLPASAGSGEGAGLRPYQTHQTHQKRPASARQLQLSSPLKAPWAVVTAPPGPVDRSRKQAGRGS
 VLPQPDTFVFLQEGTSSAMQMPGTAACTEVPVQAAQCSAPSWVVALPQVKQETADAPEEWTAVTTFLT
 SSTLQSGFPSKAADPDLSPVKQEPPEEDGEEKKDDVSETTPAEIIGVGTPVITEIFSLGGTRFRDAE
 AWLPRHLKLLAVNEKEYFTELQLKEEVL

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: BC069837

ORF Size: 1766 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: [BC069837](#), [AAH69837](#)

RefSeq Size: 2736 bp

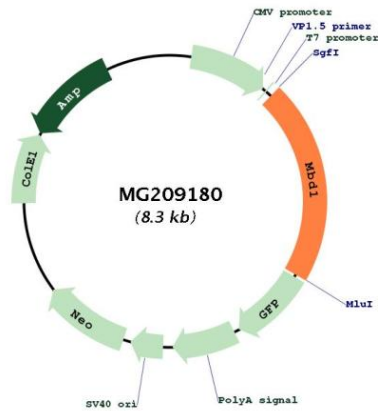
RefSeq ORF: 1766 bp

Locus ID: 17190

Cytogenetics: 18 50.7 cM

Gene Summary:

Transcriptional repressor that binds CpG islands in promoters where the DNA is methylated at position 5 of cytosine within CpG dinucleotides. Binding is abolished by the presence of 7-mG that is produced by DNA damage by methylmethanesulfonate (MMS). Acts as transcriptional repressor and plays a role in gene silencing by recruiting AFT7IP, which in turn recruits factors such as the histone methyltransferase SETDB1. Probably forms a complex with SETDB1 and ATF7IP that represses transcription and couples DNA methylation and histone 'Lys-9' trimethylation. Isoform 1 can also repress transcription from unmethylated promoters.[UniProtKB/Swiss-Prot Function]

Product images:


Circular map for MG209180