

## Product datasheet for **RG234607**

### **MBD1 (NM\_001204137) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MBD1 (NM_001204137) 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:**

>RG234607 representing NM\_001204137  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCTGAGGACTGGCTGGACTGCCCGCCCTGGCCCTGGCTGGAAGCGCCGCAAGTCTTTCGAAGT  
 CAGGGGCCACCTGTGGACGCTCAGACACCTATTACCAGAGCCCCACAGGAGACAGGATCCGAAGCAAAGT  
 TGAGCTGACTCGATACCTGGGCCCTGCGTGTGATCTCACCTCTTCGACTTCAAACAAGGCATCTTGTGC  
 TATCCAGCCCCCAAGGCCATCCCGTGGCGGTTGCCAGCAAGAAGCGAAAGAAGCCTTCAAGGCCAGCCA  
 AGACTCGAAACGTCAGGTTGGACCCAGAGTGGTGGAGTTCAGGAAGGAGGCCCGAGGGATGAGACCAA  
 GGCTGACACTGACACAGCCCCAGCTTCATTCCCTGCTCCTGGGTGCTGTGAGAACTGTGGAATCAGCTTC  
 TCAGGGGATGGCACCCAAAGGCAGCGGCTCAAACGTTGTCAAAGACTGTCGAGCACAGAGAATTGCCT  
 TCAACCGGAACAGAGAATGTTTAAAGCGTGTGGGCTGTGGGGAGTGTGCAGCCTGCCAGGTAACAGAAGA  
 CTGTGGGGCTGCTCCACCTGCCTCCTGCAGCTGCCCCATGATGTGGCATCGGGGCTGTTCTGCAAGTGT  
 GAACGGAGACGCTGCCTCCGATTGTGGAAGGAGCCGAGGGTGTGGAGTATGCCGGGGCTGTGAGACCC  
 AAGAGGATTGTGGCCATTGCCCATCTGCCTTCGCCCTCCCCGCCCTGGTCTCAGGCGCCAGTGGAAATG  
 TGTCCAGCGACGTTGCCTACGGCACCTTGTCTACCGCCTGCGTCGCCGTCATCAGAGATGTGAGCGACGC  
 ACTCCCCCTGGCTGTGGCTCCCCAACTGGTAAACATGCCCGCCGAAGGGAGGCTGTGACTCCAAGATGG  
 CTGCCAGGCGGCGCCCGGAGCCAGCCACTGCCTCCACCACCCCATCACAGTCCCAGAGCCACAGA  
 GCCGCACCCAGAGCCCTGGCCCCCTGCCACCTGCCAGTTCATCTATTACTGTGTAGACGAGGACGAG  
 CTACAGCCCTACACGAACCGCCGAGAACCGCAAGTGCAGGCGCTGTGCAGCCTGCCTACGGCGGATGG  
 ACTGTGGCCGCTGCGACTTCTGCTGCGACAAGCCAAATTCGGGGGCGAGCAACAGAGCCAGAAAGT  
 TCGTTGGCGCAATGCCTGCAGTTTGCATGAAGCGGCTGCTGCCAGTGTCTGGTCAGAGTCTGAGGAT  
 GGGGACAGGATCGCCCCACCTTACCGTCGTCGAAAGAGGCCAGCTCTGCCCGACGGCACCATCTTGGCC  
 CTACCTTGAAGCCACCTTGGCTACACGCACAGCCCAACCAGACCATAACCAGGCTCCAACGAAGCAGGA  
 AGCAGGTGGTGGCTTTGTGCTGCCCGCCCTGGCACTGACCTTGTGTTTTACGGGAAGGCGCAAGCAGT  
 CCTGTGCAGGTGCCGGGCCCTGTTGCAGCTTCCACAGAAGCCCTGTTGCAGGAGGCCAGTGTCTGGCC  
 TGAGTTGGGTTGTGGCTTACCCAGGTGAAGCAAGAGAAGGCGGATACCAGGACGAGTGGACACCAGG  
 CACAGCTGCTCCTGACTTCTCCCGTATTGGTGCCTGGCTGCCCTAGCAAGGACGAGTACCCAGGCCTGCCT  
 TCTGTGAAGCAAGAGCCACTGACCCAGAGGAGACAAGGAGGAGAACAAGGATGATTCTGCCTCCAAAT  
 TGGCCCCAGAGGAAGAGGACAGGAGGGGCTGGCACACCCGATACCGGAGATTTTCAGCCTGGGTGGAAC  
 CCGCTCCGAGATACAGCAGTCTGGTTGCCAAGGTCCAAGACCTTAAAAACCTGGAGCTAGAAAGCAG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG234607 representing NM\_001204137  
 Red=Cloning site Green=Tags(s)

MAEDWLDPCALGPGWKREVFVRKSGATCGRSDTYYSPTGDRIRSKVELTRYLGPACDLTLDFKQGILC  
 YPAPKAHPVAVASKRKKPSRPAKTRKRQVGPQSGEVRKEAPRDETKADTDTAPASFPAPGCCENCISF  
 SGDGTQRQLKTLCKDCRAQRIAFNREQRMFKRVGCGEACAQVTEDCGACSTCLLQLPHDVASGLFKC  
 ERRRCLRIVERSRGGVCRGCQTQEDCGHCPICLRPPRPLRRQWKCVQRRCLRHLAHLRRRHQRCQRR  
 TPLAVAPPTGKHARRKGGCDKMAARRRPGAQPLPPPPPSQSPEPTEPHPRALAPSPPAEFIYYCVDEDE  
 LQPYTNRRQNRKCGACAACLRMDGRCDFCCDKPKFSGSNQKRQKCRWRQCLQFAMKRLPSVWSESED  
 GAGSPPPYRRRKRPSARRHHLGPTLKPTLATRTAQPDPHTQAPTKQEAGGGFVLPVPPGTDLVFLREGASS  
 PVQVPGPVAASTEALLQEAQCSGLSWVVALPQVKQEKADTQDEWTPGTAVLTSPVLPVPGCPSKAVDPGLP  
 SVKQEPDPPEEDKEENKDDASKLAPEEEAGGAGTPVITEIFSLGGTRFRDRTAVWLPKSKDLKPKGARKQ

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001204137

**ORF Size:** 1890 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\\_001204137.2](#)

**RefSeq Size:** 2796 bp

**RefSeq ORF:** 1893 bp

**Locus ID:** 4152

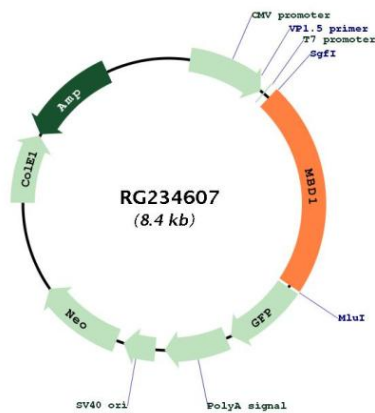
**UniProt ID:** [Q9UIS9](#)

**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]

**Product images:**



Circular map for RG234607