

## Product datasheet for **RG234468**

### **MBD4 (NM\_001276270) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MBD4 (NM_001276270) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MBD4
Synonyms:	MED1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG234468 representing NM\_001276270  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGGCACGACTGGGCTGGAGAGTCTGAGTCTGGGGACCGGGAGCTGCCCCACCGTCACTCTAGTG  
 AGCGCCTAGTCCCAGACCCGCCAATGACTCCGCAAAGAAGATGTTGCTATGGAATTGGAAAGAGTGGG  
 AGAAGATGAGGAACAAATGATGATAAAAAGAAGCAGTGAATGTAATCCCTTGCTACAAGAACCATCGCT  
 TCTGCTCAGTTTGGTGTACTGCAGGAACAGAATGCCGTAAGTCTGTCCCATGTGGATGGGAAAGAGTTG  
 TGAAGCAAAGGTTATTTGGGAAGACAGCAGGAAGATTTGATGTGTACTTTATCAGCCCACAAGGACTGAA  
 GTTCAGATCCAAAAGTTCAGTTGCTAATTATCTTCACAAAAATGGAGAGACTTCTCTAAGCCAGAAGAT  
 TTTGATTTACTGTACTTTCTAAAAGGGGTATCAAGTCAAGATATAAAGACTGCAGCATGGCAGCCCTGA  
 CATCCCATCTACAAAACCAAAGTAAACAATCAAAGTCAAGCTCAGGACCCGAAGCAAGTCAAAAAGGA  
 TGTGTTTATGCCCAAGTAGTAGTTTCAAGTTGCAGGAGAGCAGAGGACTCTCTAACTTTACTTCCACT  
 CATTTGCTTTTGAAGAAGATGAGGGTGTGTGATGTTAACTTCAGAAAAGGTTAGAAAAGCCCAAAGGAA  
 AGGTGACTATTTTGAAGAAGTCCCAATTAAGAAAATAAAAAAGGATGTAGGAAGAGCTGTTCCAGGTTT  
 TGTTCAAAGTGATAGCAAAGAGAATCTGTGTGTAATAAAGCAGATGCTGAAAGTGAACCTGTTGCACAA  
 AAAAGTCAGCTTGATAGAAGTGTCTGCATTTCTGATGCTGGAGCATGTGGTGAGACCCCTCAGTGTGACCA  
 GTGAAGAAAACAGCCTTGTAATAAAAAAAGAAAGATCATTGAGTTCAGGATCAAAATTTTGTCTGAACA  
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 ACATTTTAAACGTGGCTCTGAAATGGACAACAAGTCTCACCACCAAGGAAAGACTTCACTGAAGATAC  
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 CTTAGCCCCCACGACGTAAGCCTTTAAGAAATGGACACCTCCTCGGTACCTTTTAATCTCGTTCAAG  
 AAACACTTTTTTATGATCCATGGAAGCTTCTCATCGTACTATATTTCTCAATCGGACCTCAGGCAAAAT  
 GGCAATACCTGTGCTTTGGAAGTTTCTGGAGAAGTATCCTTCAGCTGAGGTAGCAAGAACCAGACTGG  
 AGAGATGTGTCAGAACTTCTAAACCTTTGGTCTCTACGATCTTCGGGCAAAAACCATTTGCAAGTTCT  
 CAGATGAATACCTGACAAAGCAGTGAAGTATCCAATTGAGCTTCATGGGATTGGTAAATATGGCAACGA  
 CTCTTACCGAATTTTTGTGCAATGAGTGAAGCAGGTGCACCCTGAAGACCACAAATTAATAAATAT  
 CATGACTGGCTTTGGGAAAATCATGAAAATTAAGTCTATCT

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

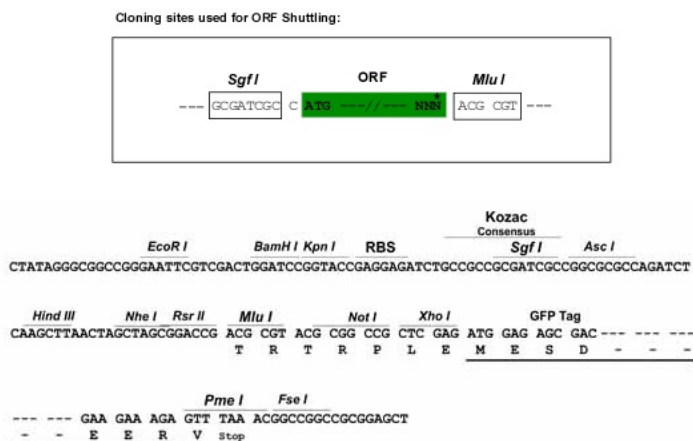
>RG234468 representing NM\_001276270  
 Red=Cloning site Green=Tags(s)

MGTTGLESLSLGDRGAAPTVTSSERLVPDPNDLRKEDVAMELERVGEDEEQMMIKRSSECNPLLQEP  
 IA  
 SAQFGATAGTECRKSVPCGWVERVVKQRLFGKTAGRFDVYFISPGQLKFRSKSSLANYLHKNGETSLK  
 PED  
 FDFTVLSKRGIKSRYKDCSMAAL TSHLQNSNNSNWNLRTRSKCKKDVFMPPSSSELQESRGLSNFT  
 ST  
 HLLKKEDEGVDDVNFVRKPKGKVTILKGIPIKKTGCRKSCSGFVQSDSKRESVCNKADAESPV  
 AQ  
 KSQLDRTVCISDAGACGETLSVTSEENSLVKKKERSLSSGSNFCSEQKTSGIINKFCSAKDSEH  
 NEKYED  
 TFLSEEEIGTKVEVVERKEHLHTDILKRGSEMDNNSPTRKDFTEDTIPRTQIERRKTSLYFSS  
 KYNKEA  
 LSPRRKAFKKWTPPRSPFNLVQETLFHDPWKLIIATIFLNRTSGKMAIPVLWKFLEKYPSAEV  
 ARTADW  
 RDVSELLKPLGLYDLRAKTIVKFSDEYLTQWKYPIELHGIGKYGNDSYRIFCVNEWKQVHPED  
 HKLNKY  
 HDWLWENHEKLSLS

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001276270

**ORF Size:** 1722 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\\_001276270.2](#)

**RefSeq Size:** 2642 bp

**RefSeq ORF:** 1725 bp

**Locus ID:** 8930

**UniProt ID:** [O95243](#)

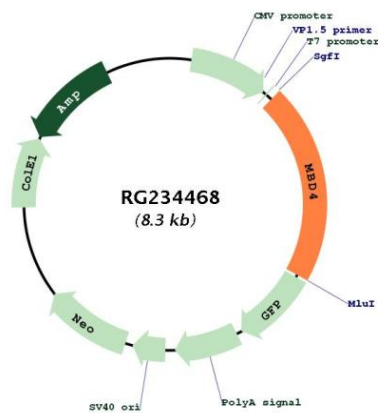
**Cytogenetics:** 3q21.3

**Protein Families:** Druggable Genome

**Protein Pathways:** Base excision repair

**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 an MBD domain at the N-terminus that functions both in binding to methylated DNA and in protein interactions and a C-terminal mismatch-specific glycosylase domain that is involved in DNA repair. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Jan 2013]

**Product images:**



Circular map for RG234468