

Product datasheet for **RG207708**

MBD1 (NM_015844) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MBD1 (NM_015844) 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:

>RG207708 representing NM_015844
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTGAGGACTGGCTGGACTGCCCGCCCTGGCCCTGGCTGGAAGCGCCGCAAGTCTTTCGAAGT
 CAGGGGCCACCTGTGGACGCTCAGACACCTATTACCAGAGCCCCACAGGAGACAGGATCCGAAGCAAAGT
 TGAGCTGACTCGATACCTGGGCCCTGCGTGTGATCTCACCTCTTCGACTTCAAACAAGGCATCTTGTGC
 TATCCAGCCCCAAGGCCATCCCGTGGCGGTTGCCAGCAAGAAGCGAAAGAAGCCTTCAAGGCCAGCCA
 AGACTCGAAACGTCAGGTTGGACCCAGAGTGGTGGAGTTCAGGAAGGAGGCCCGAGGGATGAGACCAA
 GGCTGACACTGACACAGCCCCAGCTTCATTCCCTGCTCCTGGGTGCTGTGAGAACTGTGGAATCAGCTTC
 TCAGGGATGGCACCCAAAGGCAGCGGCTCAAACGTTGTCAAAGACTGTCGAGCACAGAGAATTGCCT
 TCAACCGGAACAGAGAATGTTAAGCGTGTGGGCTGTGGGAGTGTGCAGCCTGCCAGGTAACAGAAGA
 CTGTGGGGCTGCTCCACCTGCCTCCTGCAGCTGCCCCATGATGTGGCATCGGGGCTGTTCTGCAAGTGT
 GAACGGAGACGCTGCCTCCGGATTGTGGAAGGAGCCGAGGGTGTGGAGTATGCCGGGGCTGTGAGACCC
 AAGAGGATTGTGGCCATTGCCCATCTGCCTTCGCCCTCCCCGCCCTGGTCTCAGGCGCCAGTGGAAATG
 TGTCCAGCGACGTTGCCTACGGGGTAAACATGCCCGCCGCAAGGGAGGCTGTGACTCCAAGATGGCTGCC
 AGGCGGCGCCCCGGAGCCAGCCACTGCCTCCACCACCCCATCACAGTCCCAGAGCCACAGAGCCGC
 ACCCCAGAGCCCTGGCCCCCTCGCCACCTGCCGAGTTCATCTATTACTGTGTAGACGAGGACGAGCTAAA
 GCGGCTGCTGCCAGTGTCTGGTCAAGTCTGAGGATGGGGCAGGATCGCCCCACCTTACCCTCGTCA
 AAGAGGCCAGCTCTGCCGACGGCACCATCTTGGCCCTACCTTGAAGCCACCTTGGCTACACGCACAG
 CCCAACCCAGACCATACCAGGCTCCAACGAAGCAGGAAGCAGGTTGGTGGCTTGTGCTGCCCGCCTGG
 CACTGACCTTGTGTTTTACGGGAAGGCCAAGCAGTCCCTGTGCAGGTGCCGGGCCCTGTTGCAGCTTCC
 ACAGAAGCCCTGTGTCAGGAGGCCAGTCTGCTGCTGAGTTGGGTTGTGGCCTTACCCAGGTGAAGC
 AAGAGAAGGCGGATACCCAGGACGAGTGGACACCAGGCACAGCTGCTGACTTCTCCCGTATTGGTGCC
 TGGCTGCCCTAGCAAGGCAGTAGACCCAGGCTGCCTTCTGTGAAGCAAGAGCCACTGACCCAGAGGAG
 GACAAGGAGGAGAACAAGGATGATTCTGCCTCAAATTGGCCCCAGAGGAAGAGGCAGGAGGGGCTGGCA
 CACCCGTGATCACGGAGATTTTCAGCCTGGGTGGAACCCGCTCCGAGATACAGCAGTCTGGTTGCCAAG
 GTCCAAAGACCTTAAAAAACCTGGAGCTAGAAAGCAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG207708 representing NM_015844
 Red=Cloning site Green=Tags(s)

MAEDWLDPCALGPGWKRREVFVRKSGATCGRSDTYYSPTGDRIRSKVELTRYLGPACDLTLDFKQGILC
 YPAPKAHPVAVASKKRKKPSRPAKTRKRQVGPQSGEVRKEAPRDETKADTDAPASFPAPGCCENGISF
 SGDGTQRQRLKTLCKDCRAQRIAFNREQRMFKRVGCGECAACQVTEDCGACSTCLLQLPHDVASGLFCKC
 ERRRCLRIVERSRGCVCRCQTQEDCGHCPICLRPPRPLRRQWKCVQRRCLRGKHARRKGGCDSKMAA
 RRRPGAQPLPPPPPSQSPEPEPHPRALAPSPAEFIYCVDEDELKRLLPVWSESEDGAGSPPPYRRR
 KRPSSARRHHLGPTLKPTLATRTAQPDPHTQAPTQKQEAGGGFVLPPTGDLVFLREGASSPVQVPGPVAAS
 TEALLQEAQCGLSWVVALPQVKQEKADTQDEWTPGTAVLTPVLPVPGCPSKAVDPGLPSVKQEPDPPEE
 DKEENKDDASAKLAPEEEAGGAGTPVITEIFSLGGTRFRDPAVWLPKSKDLKPKGARKQ

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

ACCN:	NM_015844
ORF Size:	1647 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:	<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:	NM_015844.2
RefSeq Size:	2793 bp
RefSeq ORF:	1650 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]