

## Product datasheet for **RC224224**

### **MBD1 (NM\_002384) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MBD1 (NM_002384) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MBD1
Synonyms:	CXXC3; PCM1; RFT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC224224 representing NM\_002384  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCTGAGGACTGGCTGGACTGCCCGCCCTGGCCCTGGCTGGAAGCGCCGCAAGTCTTTCGAAGT  
 CAGGGGCCACCTGTGGACGCTCAGACACCTATTACCAGAGCCCCACAGGAGACAGGATCCGAAGCAAAGT  
 TGAGCTGACTCGATACCTGGGCCCTGCGTGTGATCTCACCTCTTCGACTTCAAACAAGGATCTTGTGC  
 TATCCAGCCCCAAGGCCATCCCGTGGCGGTTGCCAGCAAGAAGCGAAAGAAGCCTTCAAGGCCAGCCA  
 AGACTCGAAACGTCAGGTTGGACCCAGAGTGGTGGAGTTCAGGAAGGAGGCCCGAGGGATGAGACCAA  
 GGCTGACACTGACACAGCCCCAGCTTCATTCCCTGCTCCTGGGTGCTGTGAGAACTGTGGAATCAGCTTC  
 TCAGGGGATGGCACCCAAAGGCAGCGGCTCAAACGTTGTCAAAGACTGTCGAGCACAGAGAATTGCCT  
 TCAACCGGAACAGAGAATGTTTAAAGCGTGTGGGCTGTGGGGAGTGTGCAGCCTGCCAGGTAACAGAAGA  
 CTGTGGGGCTGCTCCACCTGCCTCCTGCAGCTGCCCCATGATGTGGCATCGGGGCTGTTCTGCAAGTGT  
 GAACGGAGACGCTGCCTCCGGATTGTGGAAGGAGCCGAGGGTGTGGAGTATGCCGGGGCTGTGAGACCC  
 AAGAGGATTGTGGCCATTGCCCATCTGCCTTCGCCCTCCCCGCCCTGGTCTCAGGCGCCAGTGGAAATG  
 TGTCCAGCGACGTTGCCTACGGGGTAAACATGCCCGCCGCAAGGGAGGCTGTGACTCCAAGATGGCTGCC  
 AGGCGGCGCCCCGGAGGCCAGCCACTGCCTCCACCACCCCATCACAGTCCCCAGAGCCACAGAGCCGC  
 ACCCCAGAGCCCTGGCCCCCTCGCCACCTGCCGAGTTCATCTATTACTGTGTAGACGAGGACGAGCTAAA  
 GCGGCTGCTGCCAGTGTCTGGTCAAGTCTGAGGATGGGGCAGGATCGCCCCACCTTACCCTCGTTCGA  
 AAGAGGCCAGCTCTGCCGACGGCACCATCTTGGCCCTACCTTGAAGCCACCTTGGCTACACGCACAG  
 CCCAACAGACCATAACAGGCTCAAACGAAGCAGGAAGCAGGTGGTGGCTTTGTCTGCCCCGCTGG  
 CACTGACCTTGTGTTTTACGGGAAGGCCAAGCAGTCCCTGTGCAGGTGCCGGGCCCTGTTGCAGCTTCC  
 ACAGAAGCCCTGTTGCAGGCAGTAGACCCAGCCCTGCCTTCTGTGAAGCAAGAGCCACCTGACCCAGAGG  
 AGGACAAGGAGGAGAACAAGGATGATTCTGCCTCAAATTGGCCCCAGAGGAAGAGGCAGGAGGGCTGG  
 CACACCCGTGATCACGGAGATTTTCAGCCTGGGTGGAACCCGCTTCCGAGATACAGCAGTCTGGTTGCCA  
 AGGTCAAAGACCTTAAAAAACCTGGAGCTAGAAAGCAG

**ACCGGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA**

**Protein Sequence:**

>RC224224 representing NM\_002384  
 Red=Cloning site Green=Tags(s)

MAEDWLDCPALGPGWKRREVFVKSGATCGRSDTYYSPTGDRIRSKVELTRYLGPACDLTLDFKQGILC  
 YPAPKAHPVAVASKRKRKPSRPAKTRKRQVGPQSGEVRKEAPRDETKADTDTAPASFPAPGCCENCGISF  
 SGDGTQRQLKTLCKDCRAQRIAFNREQRMFKRVGCGEACQVTEDCGACSTCLLQLPHDVASGLFCKC  
 EERRRCLRIVERSRGCVCRGCQTQEDCGHCPICLRPPRPLRRQWKCVQRRCLRGKHARRKGGCDSKMAA  
 RRRPGAQPLPPPPPSQSPEPTEPHRALAPSPPAEFIYYCVDEDELKRLLPVWSESEDGAGSPPPYRRR  
 KRPSSARRHHLGPTLKPTLATRQAQPDHTQAPTKQEAGGGFVLPVPPGTDLVFLREGASSPVQVPGPVAAS  
 TEALLQAVDPGLPSVKQEPDPPEEDKEENKDDASAKLAPEEEAGGAGTPVITEIFSLGGTRFRDTRAVWLP  
 RSKDLKPKGARKQ

**TRTRPLEQKLI SEEDLAANDILDYKDDDDKV**

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_002384

**ORF Size:** 1509 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\\_002384.2](#), [NP\\_002375.1](#)

**RefSeq Size:** 2978 bp

**RefSeq ORF:** 1512 bp

**Locus ID:** 4152

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

**Cytogenetics:** 18q21.1

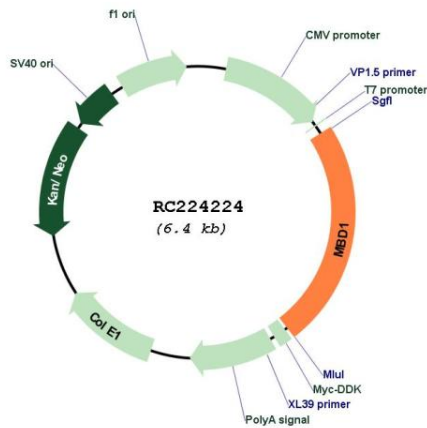
**Domains:** MBD, zf-CXXC

**Protein Families:** Druggable Genome, Transcription Factors

**MW:** 55.2 kDa

**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 RC224224