

## Product datasheet for **RC223909**

### **MBD4 (NM\_003925) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MBD4 (NM_003925) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MBD4
Synonyms:	MED1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC223909 representing NM\_003925  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGGCACGACTGGGCTGGAGAGTCTGAGTCTGGGGACCGGGAGCTGCCCCACCGTCACTCTAGT  
 AGCGCCTAGTCCCAGACCGCCGAATGACTCCGCAAAGAAGATGTTGCTATGGAATTGGAAAGAGTGGG  
 AGAAGATGAGGAACAAATGATGATAAAAAGAAGCAGTGAATGTAATCCCTTGCTACAAGAACCATCGCT  
 TCTGCTCAGTTTGGTCTACTGCAGGAACAGAATGCCGTAAGTCTGTCCCATGTGGATGGGAAAGAGTTG  
 TGAAGCAAAGGTTATTTGGGAAGACAGCAGGAAGATTTGATGTGTACTTTATCAGCCCACAAGGACTGAA  
 GTTCAGATCCAAAAGTTCACTTGCTAATTATCTTCAAAAAATGGAGAGACTTCTCTAAGCCAGAAGAT  
 TTTGATTTACTGTACTTTCTAAAAGGGGTATCAAGTCAAGATATAAAGACTGCAGCATGGCAGCCCTGA  
 CATCCCATCTACAAAACCAAAGTACAATTCAAAGTCAAGCTCAGGACCCGAAGCAAGTCAAAAAGGA  
 TGTGTTTATGCCCAAGTAGTAGTTTCAAGTTCAGAGTTGCAGGAGAGCAGAGGACTCTCTAACTTACTTCCACT  
 CATTTGCTTTTGAAGAAGATGAGGGTGTGTGATGTTAACTTCAGAAAAGGTTAGAAAAGCCCAAAGGAA  
 AGGTGACTATTTTGAAGAAGTCCCAATTAAGAAAATAAAAAGGATGTAGGAAGAGCTGTTTCAGGTTT  
 TGTTCAAAGTGATAGCAAAGAGAATCTGTGTGTAATAAAGCAGATGCTGAAAGTGAACCTGTTGCACAA  
 AAAAGTCAGCTTGATAGAAGTGTCTGCATTTCTGATGCTGGAGCATGTGGTGAGACCCCTCAGTGTGACCA  
 GTGAAGAAAACAGCCTTGTAAGAAAAGAAAGATCATTGAGTTCAGGATCAAATTTTTGTTCTGAACA  
 AAAAATCTTGGCATCATAAACAAATTTTGTTCAGCCAAAGACTCAGAACACAACGAGAAGTATGAGGAT  
 ACCTTTTTAGAAATCTGAAGAAATCGGAACAAAAGTAGAAGTTGTGGAAGGAAAGAACATTTGCATACTG  
 ACATTTTAAACGTGGCTCTGAAATGGACAACAAGTCTACCAACCAGGAAAGACTTCACTGGTGAGAA  
 AATATTTCAAGAAGATACCATCCACGAACACAGATAGAAAAGAAGGAAAACAAGCCTGTATTTTCCAGC  
 AAATATAACAAAGAAGCTCTTAGCCCCACGAGTAAAGCCTTTAAGAAATGGACACCTCCTCGGTAC  
 CTTTTAATCTCGTTCAAGAAACACTTTTTCATGATCCATGGAAGCTTCTCATCGCTACTATATTTCTCAA  
 TCGGACCTCAGGCAAAATGGCAATACCTGTGCTTTGGAAGTTTCTGGAGAAGTATCCTTCAGCTGAGGTA  
 GCAAGAACCGCAGACTGGAGAGATGTGTGAGAAGTCTTAAACCTCTTGGTCTCTACGATCTTCGGGCAA  
 AAACCATGTCAAGTCTCAGATGAATACCTGACAAAGCAGTGAAGTATCCAATTGAGCTTCATGGGAT  
 TGGTAAATATGGCAACGACTCTTACCGAATTTTTGTGTCAATGAGTGAAGCAGGTGCACCTGAAGAC  
 CACAAATTAATAAATATCATGACTGGCTTTGGGAAAATCATGAAAATTAAGTCTATCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC223909 representing NM\_003925  
 Red=Cloning site Green=Tags(s)

MGTTGLESLSLGDGRGAAPTVTSSERLVPDPPNDRKEDVAMELERVGEDEEQMMIKRSSECNPLLQEP  
 IA SAQFGATAGTECRKSVPCGWVERVVKQRLFVKTAGRFDVYFISPGQLKFRSKSSLANYLHKNGETSLKPED  
 FDFTVLSKRGIKSRYKDCSMAAL TSHLQNSNNSNWNLRTRSKCKKDVFMPPSSSELQESRGLSNFTST  
 HLLLKEDEGVDDVNFVRKPKGKVTILKGIPIKKTGCRKSCSGFVQSDSKRESVCNKADAESPEVAQ  
 KSQLDRTVCISDAGACGETLSVTSEENSLVKKKERSLSSGSNFCSEQKTSGIINKFCSAKDSEHNEKYED  
 TFLSEEEIGTKVEVVERKEHLHTDILKRGSEMDNNSPTRKDFTEKIFQEDTIPRTQIERRKTSLYFSS  
 KYNKEALSPPRRKAFKWTPPRPFNLVQETLFHDPWKLLIATIFLNRTSGKMAIPVLWKFLKYP  
 SAEV ARTADWRDVSSELLKPLGLYDLRAKTIVKFSDEYLTQWKYPIELHGIKYGNDYSYRIFCVNE  
 WKQVHPED HKLNKYHDWLWENHEKLSLS

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8078\\_e09.zip](https://cdn.origene.com/chromatograms/mk8078_e09.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_003925

**ORF Size:** 1740 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\\_003925.3](#)

**RefSeq Size:** 2470 bp

**RefSeq ORF:** 1743 bp

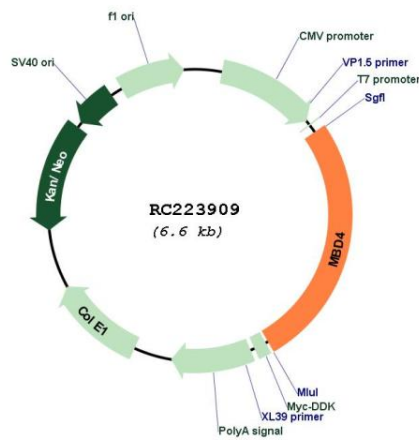
**Locus ID:** 8930

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

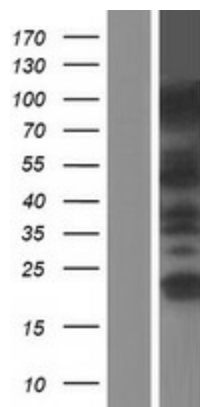
**Cytogenetics:** 3q21.3

<b>Domains:</b>	MBD
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Base excision repair
<b>MW:</b>	65.9 kDa
<b>Gene Summary:</b>	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 RC223909



Western blot validation of overexpression lysate (Cat# [LY418338]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223909 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).