

Product datasheet for SC110013

MBD2 (NM 015832) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: MBD2 (NM_015832) Human Untagged Clone

Tag: Tag Free Symbol: MBD2

Synonyms: DMTase; NY-CO-41

Mammalian Cell None

Selection:

Vector: pCMV6-XL4

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_015832 edited

GCGCGCCGCGCTGCGGGCGGGCGGGTCTCCGGGATTCCAAGGGCTCGGTTACGGAAGAA GCGCAGCGCCGGCTGGGAGGGGGCTGGATGCGCGCGCACCCGGGGGGAGGCCGCTGCTG CATAGAGCAGGGGGCCAGGGCAGCGCCCCGTCCCCGGTGAGCGGCGTGCGCAG GGAAGGCGCTCGGGGCGGCCGTGGCCGGGGGGGGGGGAAGCAGGCGGGCCGGGGCGG CGGCGTCTGTGGCCGTGGCCGGGGCCGGGGCCGTGGCCGGGGACGGGGCCGGGG CCGGGGCCGCCGTCCCCCGAGTGGCGGCAGCGGCCTTGGCGGCGACGGCGGCGGCTG CGGCGGCGCGCAGCGTGGCGGCGCCCCCCGGCGGAGCCGGTCCCTTTCCCGTC GGGGAGCGCGGGCCCAGGGGACCCCGGGCCACGGAGAGCGGGAAGAGGATGGA TTGCCCGGCCCTCCCCCCGGATGGAAGAAGGAGGAAGTGATCCGAAAATCTGGGCTAAG TCAGTTGGCAAGGTACCTGGGAAATACTGTTGATCTCAGCAGTTTTGACTTCAGAACTGG AAAGATGATGCCTAGTAAATTACAGAAGAACAAACAGAGACTGCGAAACGATCCTCTCAA TCAAAATAAGCTGCGCTGGAACACTCATCGTCCTGCACCATGGCATGCGCTTTCAAGACT CTGCTTGCTCATACGCTGTTTGCTCTGCTTGGAATGTGCTTACCCCCTTCCCCTTCATCT GGTGAACTCCTACTCATCCAAGACCCAGCTTCATTGTCTCCATCTCTGGGAAGCCTGCCC

TGCATACTCCAGGCAGAACCAATCCTTTCCTCCATAATCTAGA

Restriction Sites: Notl-Notl
ACCN: NM_015832
Insert Size: 1000 bp



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MBD2 (NM_015832) Human Untagged Clone - SC110013

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: The ORF of this clone has been fully sequenced and found to be a perfect match to

NM_015832.3.

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: <u>NM 015832.3</u>, <u>NP 056647.1</u>

RefSeq Size: 1357 bp
RefSeq ORF: 909 bp
Locus ID: 8932
UniProt ID: Q9UBB5
Cytogenetics: 18q21.2

Domains: MBD

Protein Families: Druggable Genome, Stem cell - Pluripotency, Transcription Factors

Gene Summary: DNA methylation is the major modification of eukaryotic genomes and plays an essential role

in mammalian development. Human proteins MECP2, MBD1, MBD2, MBD3, and MBD4 comprise a family of nuclear proteins related by the presence in each of a methyl-CpG binding domain (MBD). Each of these proteins, with the exception of MBD3, is capable of binding specifically to methylated DNA. MECP2, MBD1 and MBD2 can also repress transcription from methylated gene promoters. The protein encoded by this gene may function as a mediator of the biological consequences of the methylation signal. It is also reported that the this protein functions as a demethylase to activate transcription, as DNA

methylation causes gene silencing. Two transcript variants encoding different isoforms have

been found for this gene. [provided by RefSeq, Feb 2011]

Transcript Variant: This variant (2) includes an alternate exon in the 3' coding region, compared to variant 1, resulting in a shorter protein (testis-specific) that has a shorter C-

terminus, compared to isoform 1.