

Product datasheet for SC321741

MBD2 (NM_003927) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: MBD2 (NM_003927) Human Untagged Clone

Tag: Tag Free Symbol: MBD2

Synonyms: DMTase; NY-CO-41

Mammalian Cell Neomycin

Selection:

Vector:pCMV6-AC (PS100020)E. coli Selection:Ampicillin (100 ug/mL)

OriGene Technologies, Inc.

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Fully Sequenced ORF:

>OriGene sequence for NM_003927.3 CCACGCGTCCGCCGGGATTCCAAGGGCTCGGTTACGGAAGAAGCGCAGCGCCGGCTGGGG AGGGGGCTGGATGCGCGCGCACCCGGGGGGGGGGCCGCTGCTGCCCGGAGCAGGAGGAGGG GGAGAGTGCGGCGGCGCAGCGGCGCTGGCGGCGACTCCGCCATAGAGCAGGGGGGCCA GGGCAGCGCCCCGTCCCCGGTGAGCGGCGTGCGCAGGGAAGGCGCTCGGGGCGG CGGCCGTGGCCGGGGCGGTGGAAGCAGGCGGGCGGGCGGCGGCGGCGTCTGTGGCCGTGG ${\tt CCGGGGCCGGGGCCGTGGCCGGGGACGGGGCCGGGGCCGGGCCGTCC}$ TGGCGGCGCCCCCCGGCGGGAGCCGGTCCCTTTCCCGTCGGGAGCGCGGGGCCGGG CGGATGGAAGAAGGAGGAAGTGATCCGAAAATCTGGGCTAAGTGCTGGCAAGAGCGATGT CTACTACTTCAGTCCAAGTGGTAAGAAGTTCAGAAGCCAAGCCTCAGTTGGCAAGGTACCT GGGAAATACTGTTGATCTCAGCAGTTTTGACTTCAGAACTGGAAAGATGATGCCTAGTAA AGACTTGAATACAACATTGCCAATTAGACAAACAGCATCAATTTTCAAACAACCGGTAAC GCCACGTCAGCTTTTCTGGGAGAAGAGGCTACAAGGACTTAGTGCATCAGATGTAACAGA ACAAATTATAAAAACCATGGAACTACCCAAAGGTCTTCAAGGAGTTGGTCCAGGTAGCAA TGATGAGACCCTTTTATCTGCTGTTGCCAGTGCTTTGCACACAAGCTCTGCGCCAATCAC AGGGCAAGTCTCCGCTGCTGTGGAAAAGAACCCTGCTGTTTGGCTTAACACATCTCAACC CCTCTGCAAAGCTTTTATTGTCACAGATGAAGACATCAGGAAACAGGAAGAGCGAGTACA GCAAGTACGCAAGAATTGGAAGAAGCACTGATGGCAGACATCTTGTCGCGAGCTGCTGA TACAGAAGAGATGGATATTGAAATGGACAGTGGAGATGAAGCCTAAGAATATGATCAGGT AACTTTCGACCGACTTTCCCCAAGAGAAATTCCTAGAAATTGAACAAAAATGTTTCCAC TGGCTTTTGCCTGTAAGAAAAAAATGTACCCGAGCACATAGAGCTTTTTAATAGCACTA ACCAATGCCTTTTTAGATGTATTTTTGATGTATATATCTATTATTCAAAAAATCATGTTT ATTTTGAGTCCTAGGACTTAAAATTAGTCTTTTGTAATATCAAGCAGGACCCTAAGATGA AGCTGAGCTTTTGATGCCAGGTGCAATCTACTGGAAATGTAGCACTTACGTAAAACATTT GATTATTGTGACTTCACTGTATATAAACATATTTTTATACTTTATTGAAAGGGGACACCT AAAA

Restriction Sites: Please inquire **ACCN:** NM 003927

OTI Disclaimer:

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at customer.com or by calling 301.340.3188 option 3 for pricing and delivery.

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. <u>More info</u>

MBD2 (NM_003927) Human Untagged Clone - SC321741

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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 003927.3, NP 003918.1</u>

RefSeq Size: 2584 bp
RefSeq ORF: 1236 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 (1) encodes the longer isoform (1). Sequence Note: This RefSeq

record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the

transcript record were based on transcript alignments.