

Product datasheet for **RG218349**

MBD2 (NM_015832) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	MBD2
Synonyms:	DMTase; NY-CO-41
Mammalian Cell	Neomycin
Selection:	
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG218349 representing NM_015832
Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCGCGCGCACCCGGGGGAGGCCGCTGCTGCCCGAGCAGGAGGAGGGGAGAGTGCGGCGGGCGGCA
GCGGCGCTGGCGGCGACTCCGCCATAGAGCAGGGGGGCCAGGGCAGCGCGCTCGCCCCGTCCCGGTGAG
CGGCGTGCGCAGGAAGCGCTCGGGGCGCGCCGTGGCCGGGGCGGTGGAAGCAGGCGGGCCGGGGC
GGCGGCGTCTGTGGCCGTGGCCGGGGCGGGGCCGTGGCCGGGGACGGGGACGGGGCCGGGGCCGGGGC
GCGGCGGTCCCCGAGTGGCGGACGCGCCCTTGGCGGCGACGCGCGGCTGCGGCGGCGGCGGACGCG
TGGCGGCGGCGCCCCCGGCGGAGCCGCTCCCTTTCCCGTGGGGAGCGCGGGCCGGGGCCAGGGGA
CCCCGGGCCACGGAGAGCGGAAGAGGATGGATTGCCCGGCCCTCCCCCGGATGGAAGAAGGAGGAAG
TGATCCGAAAATCTGGGCTAAGTGTGGCAAGAGCGATGTCTACTACTTCAGTCCAAGTGTAAGAAGTT
CAGAAGCAAGCCTCAGTTGGCAAGGTACCTGGGAAATACTGTTGATCTCAGCAGTTTTGACTTCAGAACT
GGAAAGATGATGCCTAGTAAATTACAGAAGAACAAACAGAGACTGCGAAACGATCCTCTCAATCAAATA
AGCTGCGCTGGAACACTCATCGTCTGCACCATGGCATGCGCTTTCAAGACTCTGCTTGCTCATACGCTG
TTTGCTCTGCTTGAATGTGCTTACCCCTTCCCTTCATCTGGTGAACCTACTCATCAAGACCCAG
CTTCATTGTCTCCATCTCTGGAAGCCTGCCCTGCATACTCCAGGCAGAACCAATCCTTTCTCTCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



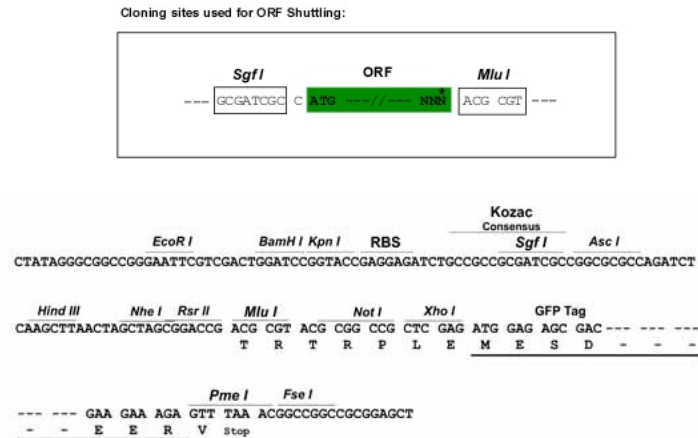
Protein Sequence: >RG218349 representing NM_015832
 Red=Cloning site Green=Tags(s)

MRAHPGGGRCCPEQEEGESAAAGSGAGGDSAIEQGGQGSALAPSPVSGVRREGARGGGRGRGRWKQAGR
 GGVCGRGRGRGRGRGRGRGRGRPPSGGSLGGDGGCGGGSGGGGAPRREPVPFPGSAGPGPRG
 PRATESGKRMDCPALPPGWKKEEVIRKSLGASGSDVYFSPSGKKFRSKPQLARYLGNTVDLSSDFRT
 GKMPMSKLQKNKQRLRNDPLNQNKLRWNTHRPAPWHALSRLCLLIRCLLCLEAYPLPLHLVNSYSSTQ
 LHCLHLWEACPAYSQRNQSFPP

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_015832

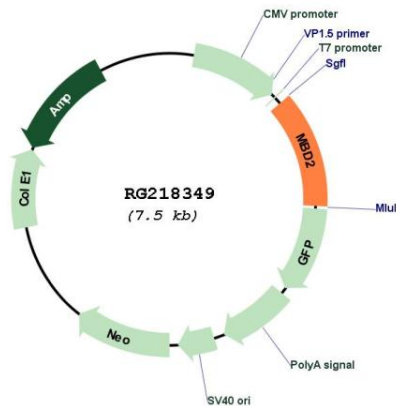
ORF Size: 906 bp

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 custsupport@origene.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. [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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_015832.5</u>
RefSeq Size:	1357 bp
RefSeq ORF:	909 bp
Locus ID:	8932
UniProt ID:	<u>Q9UBB5</u>
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]

Product images:



Circular map for RG218349