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Product datasheet for RG207511

MBD2 (NM_003927) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MBD2 (NM_003927) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MBD2
Synonyms:	DMTase; NY-CO-41
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG207511 representing NM_003927
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCGCGCGCACCCGGGGGGAGGCCGCTGCTGCCCGGAGCAGGAGGAGGGGGAGAGTGCGGCGGGCGGCA
GCGGCGCTGGCGGCGACTCCGCCATAGAGCAGGGGGGCCAGGGCAGCGCGCTCGCCCCGTCCCCGGTGAG
CGGCGTGCGCAGGGAAGGCGCTCGGGGCGGCGGCCGTGGCCGGGGGCGGTGGAAGCAGGCGGGCCGGGGC
GGCGGCGTCTGTGGCCGTGGCCGGGGCCGGGGCCGTGGCCGGGGACGGGGACGGGGCCGGGGCCGGGGCC
GCGGCCGTCCCCCGAGTGGCGGCAGCGGCCTTGGCGGCGACGGCGGCGGCTGCGGCGGCGGCGGCAGCGG
TGGCGGCGGCGCCCCCCGGCGGGAGCCGGTCCCTTTCCCGTCGGGGAGCGCGGGGCCGGGGCCCAGGGGA
CCCCGGGCCACGGAGAGCGGGAAGAGGATGGATTGCCCGGCCCTCCCCCCCGGATGGAAGAAGGAGGAAG
TGATCCGAAAATCTGGGCTAAGTGCTGGCAAGAGCGATGTCTACTACTTCAGTCCAAGTGGTAAGAAGTT
CAGAAGCAAGCCTCAGTTGGCAAGGTACCTGGGAAATACTGTTGATCTCAGCAGTTTTGACTTCAGAACT
GGAAAGATGATGCCTAGTAAATTACAGAAGAACAAACAGAGACTGCGAAACGATCCTCTCAATCAAAATA
AGGGTAAACCAGACTTGAATACAACATTGCCAATTAGACAAACAGCATCAATTTTCAAACAACCGGTAAC
CAAAGTCACAAATCATCCTAGTAATAAAGTGAAATCAGACCCACAACGAATGAATGAACAGCCACGTCAG
CTTTTCTGGGAGAAGAGGCTACAAGGACTTAGTGCATCAGATGTAACAGAACAAATTATAAAAACCATGG
AACTACCCAAAGGTCTTCAAGGAGTTGGTCCAGGTAGCAATGATGAGACCCTTTTATCTGCTGTTGCCAG
TGCTTTGCACACAAGCTCTGCGCCAATCACAGGGCAAGTCTCCGCTGCTGTGGAAAAGAACCCTGCTGTT
TGGCTTAACACATCTCAACCCCTCTGCAAAGCTTTTATTGTCACAGATGAAGACATCAGGAAACAGGAAG
AGCGAGTACAGCAAGTACGCAAGAAATTGGAAGAAGCACTGATGGCAGACATCTTGTCGCGAGCTGCTGA
TACAGAAGAGATGGATATTGAAATGGACAGTGGAGATGAAGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

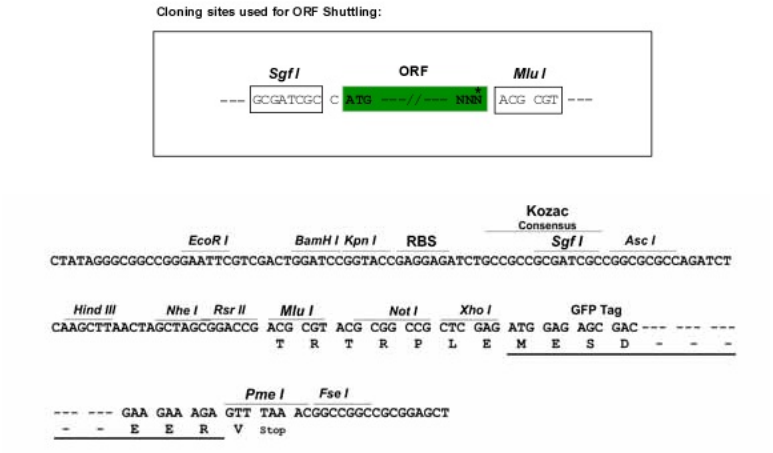
>RG207511 representing NM_003927
Red=Cloning site Green=Tags(s)

MRAHPGGGRCCPEQEEGESAAGGSGAGGDSAIEQGGQGSALAPSPVSGVRREGARGGGRGRGRWKQAGRG
GGVCGRGRGRGRGRGRGRGRGRGRGRPPSGGSGLGGDGGGCGGGGSGGGGAPRREPVPFPSGSAGPGPRG
PRATESGKRMDCPALPPGWKKEEVIRKSGLSAGKSDVYYFSPSGKKFRSKPQLARYLGNTVDLSSFDFRT
GKMMPSKLQKNKQRLRNDPLNQNKGKPDLNTTLPIRQTASIFKQPVTKVTNHPSNKVKSDPQRMNEQPRQ
LFWEKRLQGLSASDVTEQIIKTMELPKGLQGVGPGSNDETLLSAVASALHTSSAPITGQVSAAVEKNPAV
WLNTSQPLCKAFIVTDEDIRKQEERVQQVRKKLEEALMADILSRAADTEEMDIEMDSGDEA

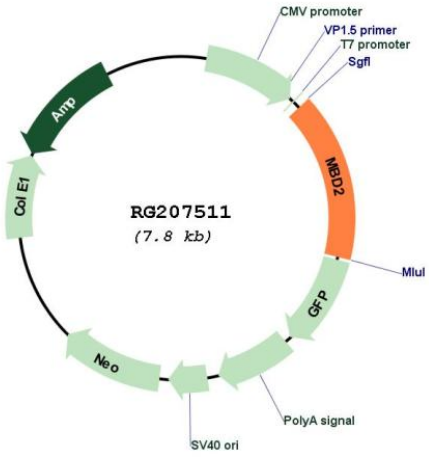
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_003927

ORF Size:	1233 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.
RefSeq:	NM_003927.5
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]