

Product datasheet for **RG223206**

DNMT3B (NM_006892) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DNMT3B (NM_006892) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DNMT3B
Synonyms:	ICF; ICF1; M.HsaIIIB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG223206 representing NM_006892
 Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGGCCGGAATTCGTCTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGGGAGACACCAGGCATCTCAATGGAGAGGAGGACGCCGGGGAGGGAAGACTCGATCCTCGTCA
 ACGGGGCCTGCAGCGACCAGTCCTCCGACTCGCCCAATCCTGGAGGCTATCCGCACCCGGAGATCAG
 AGGCCGAAGATCAAGCTCGGACTCTCCAAGAGGGAGGTGCCAGTCTGCTAAGCTACACACAGGACTTG
 ACAGGCGATGGCGACGGGAAGATGGGGATGGCTCTGACACCCAGTCATGCCAAAGCTCTCCGGGAAA
 CCAGGACTCGTTCAGAAAGCCAGCTGTCCGAACCGAAATAACAACAGTGTCTCCAGCCGGGAGAGGCA
 CAGGCCTCCCCACGTTCCACCCGAGGCCGGCAGGGCCGCAACCATGTGGACGAGTCCCCGTGGAGTTC
 CCGGCTACCAGGTCCTGAGACGGCGGCAACAGCATCGGCAGGAACGCCATGGCCGTCCCTCCAGCT
 CTTACCTTACCATCGACCTCACAGACGACACAGAGGACACACATGGGACGCCCCAGAGCAGCAGTACCCC
 CTACGCCCGCTAGCCCAGGACAGCCAGCAGGGGGGCATGGAGTCCCGCAGGTGGAGGCAGACAGTGG
 GATGGAGACAGTTCAGAGTATCAGGATGGGAAGGAGTTTGAATAGGGGACCTCGTGTGGGAAAGATCA
 AGGGCTTCTCCTGGTGGCCCGCCATGGTGGTGTCTTGAAGGCCACCTCCAAGCGACAGGCTATGTCTGG
 CATGCGGTGGGTCCAGTGGTTTGGCGATGGCAAGTTCTCCGAGGTCTCTGCAGACAACTGGTGGCACTG
 GGGCTGTTAGCCAGCACTTTAATTTGGCCACCTTCAATAAGCTCGTCTCCTATCGAAAAGCCATGTACC
 ATGCTCTGGAGAAAGCTAGGGTGCAGCTGGCAAGACCTCCCCAGCAGCCCTGGAGACTCATTGGAGGA
 CCAGCTGAAGCCCATGTTGGAGTGGGCCACGGGGCTTCAAGCCACTGGGATCGAGGGCCCTCAAACCC
 AACACACGCAACCAGAGAACAAGACTCGAAGACGCACAGCTGACGACTCAGCCACCTCTGACTACTGCC
 CCGCACCAAGCGCCTCAAGACAATTGCTATAACAACGGCAAAGACCGAGGGGATGAAGATCAGAGCCG
 AGAACAAATGGCTTCAGATGTTGCCAACAAAGAGCAGCCTGGAAGATGGCTGTTTGTCTTGTGGCAGG
 AAAAACCCCGTGTCTTCCACCCTCTTTTGGGGGGGCTCTGTGACACATGCCGGGATCGCTTCTTGG
 AGCTGTTTTACATGTATGATGACGATGGCTATCAGTCTTACTGCACTGTGTGCTGCGAGGGCCGAGAGCT
 GCTGCTTTCAGCAACACGAGCTGCTGCCGGTGTCTGTGTGGAGTGCCTGGAGGTGCTGGTGGGCACA
 GGCACAGCGGCCGAGGCCAAGCTTCCAGGAGCCCTGGAGCTGTACATGTGTCTCCCGCAGCGCTGTCATG
 GCGTCTGCGGCCCGGAAGGACTGGAACGTGCGCCTGCAGGCCCTTCCACCAGTGACACGGGGCTTGA
 ATACGAAGCCCCAAGCTGTACCCTGCCATTCCCGCAGCCGAAGGCGGCCCATTCGAGTCTGTCATTG
 TTTGATGGCATCGCGACAGGCTACCTAGTCTCAAAGAGTTGGGCATAAAGGTAGGAAAGTACGTCGCTT
 CTGAAGTGTGTGAGGAGTCCATTGCTGTTGGAACCGTGAAGCAGGAGGGGAATATCAAATACGTGAACGA
 CGTGAGGAACATCACAAAGAAAAATATTGAAGAATGGGGCCCATTTGACTTGGTGAATGGCGGAAGCCCA
 TGCAACGATCTCTCAAATGTGAATCCAGCCAGGAAAGGCCTGTATGAGGGTACAGGCCGGCTCTTCTTCG
 AATTTTACCACCTGCTGAATTACTCACGCCCAAGGAGGGTGTGACCGGCCGTTCTTCTGGATGTTTGA
 GAATGTTGTAGCCATGAAGTTGGCGACAAGAGGGACATCTCACGGTTCCTGGAGTGAATCCAGTGATG
 ATTGATGCCATCAAAGTTTCTGTGCTCACAGGGCCGATACTTCTGGGGCAACCTACCCGGGATGAACA
 GGATCTTTGGCTTCTGTGCTACACAGACGTGTCCAACATGGGCCGTGGTCCCGCCAGAAGCTGCT
 GGAAGGTCTGGAGCGTGCCTGTACCGACACCTCTTCGCCCTCTGAAGGACTACTTTGCATGTGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_006892

ORF Size: 2310 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](#)

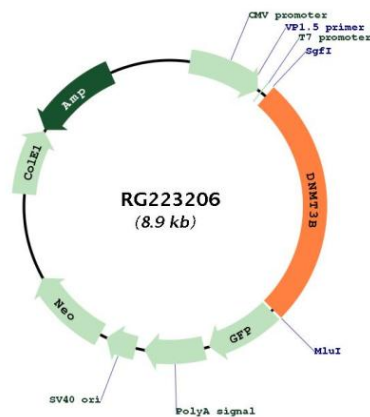
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_006892.3](#), [NP_008823.1](#)
RefSeq Size: 4353 bp
RefSeq ORF: 2562 bp
Locus ID: 1789
UniProt ID: [Q9UBC3](#)
Cytogenetics: 20q11.21
Domains: PWWP, DNA_methylase
Protein Families: Druggable Genome, Embryonic stem cells, Induced pluripotent stem cells, Stem cell - Pluripotency
Protein Pathways: Cysteine and methionine metabolism, Metabolic pathways
Gene Summary: CpG methylation is an epigenetic modification that is important for embryonic development, imprinting, and X-chromosome inactivation. Studies in mice have demonstrated that DNA methylation is required for mammalian development. This gene encodes a DNA methyltransferase which is thought to function in de novo methylation, rather than maintenance methylation. The protein localizes primarily to the nucleus and its expression is developmentally regulated. Mutations in this gene cause the immunodeficiency-centromeric instability-facial anomalies (ICF) syndrome. Eight alternatively spliced transcript variants have been described. The full length sequences of variants 4 and 5 have not been determined. [provided by RefSeq, May 2011]

Product images:



Circular map for RG223206