

Product datasheet for **RC222068**

DNMT3B (NM_175850) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DNMT3B (NM_175850) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DNMT3B
Synonyms:	ICF; ICF1; M.HsaIIIB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC222068 representing NM_175850
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAACCAAGTCTGAGCTCCAAGCTTGAAAGCATGAAGGGAGACACCAGGCATCTCAATGGAGAGG
 AGGACGCCGGCGGAGGGAAGACTCGATCCTCGTCAACGGGGCCTGCAGCGACCAGTCTCCGACTCGCC
 CCCAATCTGGAGGCTATCCGCACCCCGGAGATCAGAGGCCGAAGATCAAGCTCGCGACTCTCCAAGAGG
 GAGGTGTCCAGTCTGCTAAGCTACACACAGGACTTGACAGGCGATGGCGACGGGGAAGTGGGGATGGCT
 CTGACACCCAGTCATGCCAAAGCTCTCCGGGAAACCAGGACTCGTTCAGAAAGCCAGCTGTCCGAAC
 TCGAAATAACAACAGTGTCTCCAGCCGGGAGAGGCACAGGCCCTCCCCACGTTCCACCCGAGGCCGGCAG
 GGCCGCAACCATGTGGACGAGTCCCCCGTGGAGTTCGGGCTACCAGTCCCTGAGACGGCGGGCAACAG
 CATCGGCAGGAACGCCATGGCCGTCCTCCAGCTCTTACCTTACCATCGACCTCACAGACGACACAGA
 GGACACACATGGGACGCCCCAGAGCAGCAGTACCCCTACGCCCGCTAGCCAGGACAGCCAGCAGGGG
 GGATGGAGTCCCGCAGGTGGAGGCAGACAGTGGAGATGGAGACAGTTCAGAGTATCAGGATGGGAAGG
 AGTTTGAATAGGGGACCTCGTGTGGGGAAGATCAAGGGCTTCTCCTGGTGGCCCGCCATGGTGGTGTCT
 TTGGAAGGCCACCTCCAAGCGACAGGCTATGTCTGGCATGCGGTGGGTCCAGTGGTTGGCGATGGCAAG
 TTCTCCGAGGTCTCTGCAGACAACTGGTGGCACTGGGGCTGTTAGCCAGCACTTTAATTTGGCCACCT
 TCAATAAGCTCGTCTCTATCGAAAAGCCATGTACCATGCTCTGGAGAAAGCTAGGGTGCAGCTGGCAA
 GACCTTCCCAGCAGCCCTGGAGACTCATTGGAGGACCAGCTGAAGCCATGTTGGAGTGGGCCACGGG
 GGCTTCAAGCCCACTGGGATCGAGGGCTCAAACCCAACAACACGCAACCAGAGAACAAGACTCGAAGAG
 GCACACTGACGACTCAGCCACCTCTGACTACTGCCCCGACCCAAGCGCCTCAAGACAATAATGCTATAA
 CAACGGCAAAGACCGAGGGGATGAAGATCAGAGCCGAGAAACAAATGGCTTCAGATGTTGCCAAACAAG
 AGCAGCCTGGAAGATGGCTGTTGTCTTGTGGCAGGAAAAACCCGCTGTCTTCCACCTCTCTTTGAGG
 GGGGGCTCTGTCAGACATGCCGGGATCGCTTCTTGGAGCTGTTTTACATGTATGATGACGATGGCTATCA
 GTCTTACTGCACTGTGTGCTGCGAGGGCCGAGAGCTGCTGCTTTGCAGCAACACGAGCTGCTGCCGTGT
 TTCTGTGTGGAGTGCCTGGAGGTGCTGGTGGGCACAGGCACAGCGGCCGAGGCCAAGCTTCAGGAGCCCT
 GGAGCTGTTACATGTGTCTCCCGCAGCGCTGTCATGGCGTCTGCGGCCCGGAAGGACTGGAACGTGCG
 CCTGCAGGCCCTTCTTACCAGTGACACGGGGCTTGAATATGAAGCCCCAAGCTGTACCCTGCCATTCCC
 GCAGCCGAAGGGGCCATTTCGAGTCTGTCTATTGTTTGGATGGCATCGCGACAGGCTACCTAGTCTCTCA
 AAGAGTTGGGCATAAAGGTAGGAAAGTACGTGCTTCTGAAGTGTGTGAGGAGTCCATTGCTGTTGGAAC
 CGTGAAGCACGAGGGGAATATCAAAATACGTGAACGACGTGAGGAACATCAAAAGAAAAATATTGAAGAA
 TGGGGCCATTGACTTGGTGATTGGCGGAAGCCCATGCAACGATCTCTCAAATGTGAATCCAGCCAGGA
 AAGGCCTGATGAGGGTACAGGCCGGCTCTTCTCGAATTTTACCACCTGCTGAATTACTCACGCCCAA
 GGAGGGTATGACCGGCCGTTCTTCTGGATGTTTGAGAATGTTGTAGCCATGAAGGTTGGCGACAAGAGG
 GACATCTACGGTTCCTGGAGTGAATCCAGTGATGATTGATGCCATCAAAGTTTCTGCTGCTCACAGGG
 CCCGATACTTCTGGGGCAACCTACCCGGGATGAACAGGCCCGTATAGCATCAAAGAATGATAAACTCGA
 GCTGCAGGACTGCTTGGAAACAATAGGATAGCCAAGTTAAAGAAAGTACAGACAATAACCACCAAGTCCG
 AACTCGATCAAACAGGGGAAAAACCAACTTTTCCCTGTTGTGATGAATGGCAAAGAAGATGTTTGTGGT
 GCACTGAGCTCGAAAGGATCTTTGGCTTCTGCTGCACTACACAGACGTGTTCAACATGGCCGTTGGTGC
 CCGCCAGAAGCTGCTGGGAAGTCTGGAGCGTGCCTGTATCCGACACCTCTCGCCCTCTGAAGGAC
 TACTTTGCATGTGAA

ACGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC222068 representing NM_175850
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MEPSPEPPSLES MKGDTRHLNGEEDAGGRED SILVNGACSDQSSDSPPILEAIRTP EIRGRSSRLSKR
 EVSLLSYTQDL TGDGDGEDGDGSDTPVMPKLFRETRTRSESPAVRTRNNNSVSSRERHRPSRSTRGRQ
 GRNHVDESPVEFPATRS LRRRATASAGTPWSPSSYL TIDLDDTEDTHGTPQSSSTPYARLAQDSQQG
 GMESPQVEADSGDGSSEYQDGKEFGIGDLVWGKIKGFSWVAMPVSWKATSKRQAMSGMRVWQFQFQDGK
 FSEVSADKLVALGLFSQHFNLATFNKLVSYRKAMYHALEKARVRAGKTFPSSPGDSEDLQKPMLEWAHG
 GFKPTGIEGLKPNNTQPENKTRRRRADD SATSDYCPAPKRLKTN CYNNGKDRGDEQDSREQMASDVANNK
 SSLEDGCLSCGRKNPVSFHPLFEGGLCQTCRDRFLELFYMYDDDGYQSYCTVCEGRELLLCNTSCCRC
 FCVECLEVLVGTGTA AEAKLQEPWSCYMCLPQRCHGVLRRRKDWNVRLQAFFTSDTGLEYEAPKLYPAIP
 AARRRPIRVL SLFDGIATGYLVLKELGIKVGKYVASEVCEEIAVGTVKHEGNIKYVNDVRNITKKNIEE
 WGPFDLVIGGSPCNDLSNVN PARKGLYEGTGRLFFEFYHLLNYSRPKEGDDRPFFWMMFENVVAMKVGDKR
 DISRFL E CNPVMIDA I KVSAAHRARYFWGNLPGMNRPV IASKNDKLELQDCLEYNRIAKLKKVQTITTKS
 NSIKQGNQLFPVVMNGKEDVLWCTELERIFGFPVHYTDVSNMGRGARQKLLGRSWSVPVIRHLFAPLKD
 YFACE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

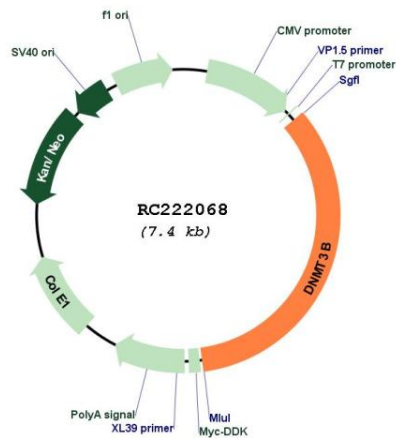
Cloning Scheme:



ACCN:	NM_175850
ORF Size:	2535 bp
OTI Disclaimer:	<p>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.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_175850.2 , NP_787046.1
RefSeq Size:	4272 bp
RefSeq ORF:	2538 bp
Locus ID:	1789
UniProt ID:	Q9UBC3
Cytogenetics:	20q11.21
Protein Families:	Druggable Genome, Embryonic stem cells, Induced pluripotent stem cells, Stem cell - Pluripotency
Protein Pathways:	Cysteine and methionine metabolism, Metabolic pathways
MW:	94.7 kDa

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 RC222068