

Product datasheet for **SC307033**

DNMT3B (NM_175850) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DNMT3B (NM_175850) Human Untagged Clone
Tag:	Tag Free
Symbol:	DNMT3B
Synonyms:	ICF; ICF1; M.HsaIIIB
Vector:	<u>pCMV6 series</u>



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Fully Sequenced ORF: >NCBI ORF sequence for NM_175850, the custom clone sequence may differ by one or more nucleotides

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ATGGAACCAAGTCTGAGCCTCCAAGCTTGAAAGCATGAAGGGAGACACCAGGCATCTC
AATGGAGAGGAGGACGCCGGCGGGAGGGAAGACTCGATCCTCGTCAACGGGGCTGCAGC
GACCAGTCTCCGACTCGCCCCAATCCTGGAGGCTATCCGCACCCCGGAGATCAGAGGC
CGAAGATCAAGCTCGCGACTCTCCAAGAGGGAGGTGTCCAGTCTGCTAAGCTACACACAG
GACTTGACAGGGCATGGCGACGGGGAAGATGGGGATGGCTCTGACACCCAGTCATGCCA
AAGCTCTCCGGGAAACCAGGACTCGTTTCAGAAAGCCAGCTGTCCGAACTCGAAATAAC
AACAGTGTCTCCAGCCGGGAGAGGCACAGGCCTTCCCCAGTTCCACCCGAGGCCGGCAG
GGCCGCAACCATGTGGACGAGTCCCCCGTGGAGTTCGGCTACCAGTCCCTGAGACGG
CGGGCAACAGCATCGGCAGGAACGCCATGGCCGTCCCCTCCCAGCTTTACCTTACCATC
GACCTCACAGACGACACAGAGGACACACATGGGACGCCCCAGAGCAGCAGTACCCCTAC
GCCCGCTAGCCAGGACAGCCAGCAGGGGGCATGGAGTCCCCGAGGTGGAGGCAGAC
AGTGGAGATGGAGACAGTTCAGAGTATCAGGATGGGAAGGAGTTTGAATAGGGGACCTC
GTGTGGGAAAGATCAAGGGCTTCTCCTGGTGGCCGCCATGGTGGTGTCTTGAAGGCC
ACCTCAAAGCGACAGGCTATGTCTGGCATGCGGTGGGTCCAGTGGTTTGGCGATGGCAAG
TTCTCCGAGGTCTCTGCAGACAACTGGTGGCACTGGGGCTGTTTCAGCCAGCACTTTAAT
TTGGCCACCTTCAATAAGCTCGTCTCCTATCGAAAAGCCATGTACCATGTCTGGAGAAA
GCTAGGGTGCAGCTGGCAAGACCTTCCCAGCAGCCCTGGAGACTCATTGGAGGACCAG
CTGAAGCCCATGTTGGAGTGGGCCACGGGGCTTCAAGCCCACTGGGATCGAGGGCCTC
AAACCCAAACACGCAACCAGAGAACAAGACTCGAAGACGCACAGCTGACGACTCAGCC
ACCTCTGACTACTGCCCCGACCCAAGCGCCTCAAGACAAATTGCTATAACAACGGCAAA
GACCGAGGGGATGAAGATCAGAGCCGAGAACAATGGCTTCAGATGTTGCCAACAAACAA
AGCAGCCTGGAAGATGGCTGTTTGTCTTGTGGCAGGAAAAACCCGTGTCTTCCACCCT
CTCTTTGAGGGGGGCTCTGTGACAGATGCCGGGATCGCTTCTTGGAGCTGTTTTACATG
TATGATGACGATGGCTATCAGTCTTACTGCACTGTGTGCTGCGAGGGCCGAGAGCTGCTG
CTTTGCAGCAACACGAGCTGCTGCCGTGTTTCTGTGGAGTGCCTGGAGGTGCTGGTG
GGCACAGGCACAGCGCCGAGGCCAAGCTTCAGGAGCCCTGGAGCTGTTACATGTGTCTC
CCGCAGCGCTGTCATGGCGTCTGCGGCGCCGGAAGGACTGGAACGTGCGCTGCAGGCC
TTCTTACCAGTGACACGGGCTTGAATATGAAGCCCCAAGCTGTACCCTGCCATTCCC
GCAGCCCGAAGGGGCCATTTCGAGTCTGTCTTGTGTTGATGGCATCGCGACAGGCTAC
CTAGTCTCAAAGAGTTGGGCATAAAGGTAGGAAAGTACGTGCTTCTGAAGTGTGTGAG
GAGTCCATTGCTGTTGGAACCGTGAAGCAGGAGGGAATATCAAATACGTGAACGACGTG
AGGAACATCACAAGAAAAATATTGAAGAATGGGGCCATTTGACTTGGTGATTGGCGGA
AGCCCATGCAACGATCTCTCAAATGTGAATCCAGCCAGGAAAGGCTGTATGAGGGTACA
GGCCGGCTCTTCTCGAATTTTACCACCTGCTGAATTACTCACGCCCAAGGAGGGTGAT
GACCGGCCGTTCTTCTGGATGTTTGAAGATGTTGTAGCCATGAAGTTGGCGACAAGAGG
GACATCTACGGTCTCTGGAGTGAATCCAGTGTGATGATGCCATCAAAGTTTCTGCT
GCTCACAGGGCCGATACTTCTGGGGCAACCTACCCGGGATGAACAGGCCCGTGATAGCA
TCAAAGAATGATAAACTCGAGCTGCAGGACTGCTTGAATACAATAGGATAGCCAAGTTA
AAGAAAAGTACAGACAATAACCACCAAGTCAAAGTCAATCAACAGGGGAAAAACCAACTT
TTCCCTGTTGTCATGAATGGCAAAGAAGATGTTTTGTGGTGCAGTGCAGCTCGAAAGGATC
TTTGGCTTCTGTCAGTACACAGACGTGTTCAACATGGGCCGTGGTCCCGCCAGAAG
CTGCTGGGAAGGCTCTGGAGCGTGCCTGTATCCGACACCTTTCGCCCTCTGAAGGAC
TACTTTGCATGTGAATAG
    
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Restriction Sites: Please inquire

ACCN: NM_175850

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:	<p>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.</p>
Components:	<p>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).</p>
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:	<u>NM_175850.1, NP_787046.1</u>
RefSeq Size:	4267 bp
RefSeq ORF:	2538 bp
Locus ID:	1789
UniProt ID:	<u>Q9UBC3</u>
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

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]

Transcript Variant: This variant (6) uses an alternate exon in the 5' UTR and coding region that introduces an upstream start codon, compared to variant 1. Variant 6 also lacks an in-frame exon in the coding region, compared to variant 1. Isoform 6 is shorter and has a unique N-terminus, compared to isoform 1.