

## Product datasheet for **MC222140**

### **Dnmt3b (NM\_001003961) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Dnmt3b (NM_001003961) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Dnmt3b
Synonyms:	MmullIB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >MC222140 representing NM\_001003961  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAAGGGAGACAGCAGACATCTGAATGAAGAAGAGGGTGCCAGCGGGTATGAGGAGTGCATTATCGTTA  
 ATGGGAACCTTCAGTGACCAGTCCCTCAGACACGAAGGATGCTCCCTCACCCCAAGTCTTGAGGCAATCTG  
 CACAGAGCCAGTCTGCACACCAGAGACAGAGGCCGAGGTCAAGCTCCCGGCTGTCTAAGAGGGAGGT  
 TCCAGCCTTCTGAATTACACGCAGGACATGACAGGAGATGGAGACAGAGATGATGAAGTAGATGATGGGA  
 ATGGCTCTGATATTCTAATGCCAAAGCTCACCCGTGAGACCAAGGACACCAGGACGCGCTCTGAAAGCCC  
 GGCTGTCCGAACCCGACATAGCAATGGGACCTCCAGCTTGAGAGGGCAAAGAGCCTCCCCAGAATCACC  
 CGAGGTCGGCAGGGCCGCCACCATGTGCAGGAGTACCCTGTGGAGTTTCCGGCTACCAGGTCTCGGAGAC  
 GTCGAGCATCATCTTCAGCAAGCAGCCATGGTCATCCCCTGCCAGCGTCGACTTCATGGAAGAAGTGAC  
 ACCTAAGAGCGTCAGTACCCCATCAGTTGACTTGAGCCAGGATGGAGATCAGGAGGTATGGATACCACA  
 CAGGTGGATGCAGAGAGCAGAGATGGAGACAGCACAGAGTATCAGGATGATAAAGAGTTTGGAAAGGTG  
 ACCTCGTGTGGGAAAGATCAAGGGCTTCTCCTGGTGGCCTGCCATGGTGGTGTCTGGAAGGCCACCTC  
 CAAGCGACAGGCCATGCCCGAATGCGCTGGGTACAGTGGTTTGGTATGGCAAGTTTTCTGAGATCTCT  
 GCTGACAAACTGGTGGCTCTGGGCTGTTAGCCAGCACTTAACTCTGGTACCTTCAATAAGCTGGTTT  
 CTTATAGGAAGGCCATGTACCACACTCTGGAGAAAGCCAGGGTTCGAGCTGGCAAGACCTTCTCCAGCAG  
 TCCTGGAGAGTCACTGGAGGACAGCTGAAGCCCATGCTGGAGTGGGCCACGGTGGCTTCAAGCCTACT  
 GGGATCGAGGGCCTCAAACCCAAGAAGCAACCAGTGGTTAATAAGTGAAGTGCCTGCTGTTCCAGACA  
 GTAGAACCTTAGAACCCAGGAGACGCGAGAACAAGTGAAGACGCACAACCAATGACTCTGCTGCTTCC  
 TGAGTCCCCCACCACCAAGCGCCTCAAGACAAATAGCTATGGCGGGAAGGACCGAGGGGAGGATGAGGAG  
 AGCCGAGAACGGATGGCTTCTGAAGTACCAACAACAAGGGCAATCTGGAAGACCCTGTTTGTCTGTG  
 GAAAGAAGAACCCTGTGTCTTCCACCCCTCTTTGAGGGTGGGCTCTGTGAGAGTTGCCGGATCGCTT  
 CCTAGAGCTCTTCTACATGTATGATGAGGACGGCTATCAGTCTACTGCACCGTGTGCTGTGAGGGCCGT  
 GAACTGCTGTGTGCAGTAACACAAGCTGCTGCAGATGCTTCTGTGTGGAGTGTCTGGAGGTGCTGGTGG  
 GCGCAGGCACAGCTGAGGATGCCAAGCTGCAGGAACCTGGAGTGTATATGTGCTCCCTCAGCGCTG  
 CCATGGGGTCTCCGACGCAGGAAAGATTGGAACATGCGCCTGCAAGACTTCTTCACTACTGATCCTGAC  
 CTGGAAGAAATTTGAGCCACCAAGTTGTACCCAGCAATCCTGCAGCCAAAAGGAGGCCATTAGAGTCC  
 TGCTCTGTTTGTGAAATTGCAACGGGGTACTTGGTGTCAAGGAGTTGGGTATTAAGTGGAAAAGTA  
 CATTGCCTCCGAAGTCTGTGCAGAGTCCATCGCTGTGGGAATGTTAAGCATGAAGGCCAGATCAATAT  
 GTCAATGACGTCCGAAAATCACCAAGAAAAATATTGAAGAGTGGGGCCCGTTTCCACTTGGTGATTGGTG  
 GAAGCCCATGCAATGATCTCTAACGTCAATCCTGCCCGCAAAGGTTTATATGAGGGCACAGGAAGGCT  
 CTTCTTCGAGTTTTACCCTTGTGAATTATACCCGCCCAAGGAGGGCGACAACCGTCCATTCTTCTGG  
 ATGTTTCGAGAATGTTGTGGCCATGAAAGTGAATGACAAGAAAGACATCTCAAGATTCCTGGCATGTAACC  
 CAGTGATGATCGATGCCATCAAGGTGTCTGCTGCTCACAGGGCCCGTACTTCTGGGGTAACCTACCCGG  
 AATGAACAGGCCCGTGTGGCTTCAAGAATGATAAGCTCGAGCTGCAGGACTGCCTGGAGTTTCAGTAGG  
 ACAGCAAAGTTAAAGAAAGTGCAGACAATAACCACCAAGTCAAGTCCATCAGACAGGGCAAACCAAGCAGC  
 TTTTCCCTGTAGTCATGAATGGCAAGGACGACGTTTTTGGTGTGACTGAGCTCGAAAGGATCTTCGGCTT  
 CCCTGCTCACTACAGGACGTGTCCAACATGGGCCGCGCCCGTCAAGAGTGTGGCAGGTCTCGG  
 AGTGTACCGGTATCAGACACCTGTTTGGCCCTTGAAGGACTACTTGCCTGTGAATAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul  
**ACCN:** NM\_001003961  
**Insert Size:** 2580 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](mailto: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](#)

**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\\_001003961.4](#), [NP\\_001003961.2](#)

**RefSeq Size:** 4341 bp

**RefSeq ORF:** 2580 bp

**Locus ID:** 13436

**UniProt ID:** [O88509](#)

**Cytogenetics:** 2 H1

**Gene Summary:** This is one of two related genes encoding de novo DNA methyltransferases, which are responsible for the establishment of DNA methylation patterns in embryos. Loss of function of this gene results in severe developmental defects and loss of viability. Mutation of the related gene in humans causes immunodeficiency-centromeric instability-facial anomalies (ICF) syndrome. There is a pseudogene for this gene located adjacent to this gene in the same region of chromosome 2. Alternatively spliced transcript variants encoding multiple isoforms have been observed. [provided by RefSeq, Nov 2012]

Transcript Variant: This variant (1) differs in the 5' UTR and uses an alternate in-frame splice site, compared to variant 5. The encoded isoform (1, also known as Dnmt3b1) is shorter than isoform 5. Variants 1 and 6 encode the same isoform (1).