

## Product datasheet for **MR231160**

### **Dnmt3b (NM\_001271746) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Dnmt3b (NM_001271746) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dnmt3b
Synonyms:	Mmull1B
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>MR231160 representing NM\_001271746  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAAGGGAGACAGCAGACATCTGAATGAAGAAGAGGGTGCCAGCGGGTATGAGGAGTGCATTATCGTTA  
 ATGGGAACTTCAGTGACCAGTCCCTCAGACACGAAGGATGCTCCCTCACCCCAAGTCTTGAGGCAATCTG  
 CACAGAGCCAGTCTGCACACCAGAGACCAGAGGCCGAGGTCAAGCTCCCGGCTGTCTAAGAGGGAGGT  
 TCCAGCCTTCTGAATTACACGCAGGACATGACAGGAGATGGAGACAGAGATGATGAAGTAGATGATGGGA  
 ATGGCTCTGATATTCTAATGCCAAAGCTCACCCGTGAGACCAAGGACACCAGGACGCGCTCTGAAAGCCC  
 GGCTGTCCGAACCCGACATAGCAATGGGACCTCCAGCTTGAGAGGGCAAAGAGCCTCCCCAGAATCACC  
 CGAGGTCGGCAGGGCCGCCACCATGTGCAGGAGTACCCTGTGGAGTTTCCGGCTACCAGGTCTCGGAGAC  
 GTCGAGCATCATCTTCAGCAAGCAGCCATGGTCATCCCCTGCCAGCGTCGACTTCATGGAAGAAGTGAC  
 ACCTAAGAGCGTCAGTACCCCATCAGTTGACTTGAGCCAGGATGGAGATCAGGAGGTATGGATACCACA  
 CAGGTGGATGCAGAGAGCAGAGATGGAGACAGCACAGAGTATCAGGATGATAAAGAGTTTGGAAAGGTG  
 ACCTCGTGTGGGAAAGATCAAGGGCTTCTCCTGGTGGCCTGCCATGGTGGTGTCTGGAAGGCCACCTC  
 CAAGCGACAGGCCATGCCCGAATGCGCTGGGTACAGTGGTTTGGTGATGGCAAGTTTTCTGAGATCTCT  
 GCTGACAAACTGGTGGCTCTGGGGCTGTTAGCCAGCACTTAACTGGCTACCTTCAATAAGCTGGTTT  
 CTTATAGGAAGGCCATGTACCACACTCTGGAGAAAAGCCAGGGTTCGAGCTGGCAAGACCTTCTCCAGCAG  
 TCCTGGAGAGTCACTGGAGGACCAGCTGAAGCCCATGCTGGAGTGGGCCACGGTGGCTTCAAGCCTACT  
 GGGATCGAGGGCCTCAAACCCAAAGAAGCAACCAGTGGTTAATAAGTGAAGGTGCGTCTGTTAGACA  
 GTAGGAACCTAGAACCCAGGAGACGCGAGAACAAGTGAAGACGCACAACCAATGACTCTGCTGCTTC  
 TGAGTCCCCCCCACCAAGCGCCTCAAGACAAATAGCTATGGCGGGAAGGACCGAGGGGAGGATGAGGAG  
 AGCCGAGAACGGATGGCTTCTGAAGTACCAACAACAAGGGCAATCTGGAAGACCCTGTTTGTCTGTG  
 GAAAGAAGAACCCTGTGTCTTCCACCCCTCTTTGAGGGTGGGCTCTGTGAGAGTTGCCGGGATCGCTT  
 CCTAGAGCTCTTCTACATGTATGATGAGGACGGCTATCAGTCTACTGCACCGTGTGCTGTGAGGGCCGT  
 GAACTGCTGTGTGCAATAACACAAGCTGCTGCAGATGCTTCTGTGTGGAGTGTCTGGAGGTGCTGGTGG  
 GCGCAGGCACAGCTGAGGATGCCAAGCTGCAGGAACCCTGGAGTGTATATGTGCTCCCTCAGCGCTG  
 CCATGGGGTCTCCGACGCAGGAAAGATTGGAACATGCGCCTGCAAGACTTCTTCACTACTGATCCTGAC  
 CTGGAAGAATTTGAGCCACCAAGTTGTACCCAGCAATTCCTGCAGCCAAAAGGAGGCCATTAGAGTCC  
 TGTCTCTGTTTGTGAATTGCAACGGGTACTTGGTGTCAAGGAGTTGGGTATTAAGTGGAAAAGTA  
 CATTGCCTCCGAAGTCTGTGCAGAGTCCATCGCTGTGGGAACTGTTAAGCATGAAGGCCAGATCAATAT  
 GTCAATGACGTCCGAAAATCACCAAGAAAAATATTGAAGAGTGGGGCCCGTTTCCACTTGGTGATTGGTG  
 GAAGCCCATGCAATGATCTCTAACGTCAATCCTGCCCGCAAAGGTTTATATGAGGGCACAGGAAGGCT  
 CTTCTTCGAGTTTTACCACTTGTGAATTATACCCGCCCAAGGAGGGCGACAACCGTCCATTCTTCTGG  
 ATGTTTCGAGAATGTTGTGGCCATGAAAGTGAATGACAAGAAAGACATCTCAAGATTCCTGGCATGTAACC  
 CAGTGATGATCGATGCCATCAAGGTGTCTGCTGCTCACAGGGCCCGTACTTCTGGGGTAACCTACCCGG  
 AATGAACAGGATCTTCGGCTTCCCTGCTCACTACACGGACGTGTCCAACATGGGCCGCGGGCCCGTCCAG  
 AAGCTGCTGGGCAGGTCTGGAGTGTACCGTTCATCAGACACCTGTTTGGCCCTGAAGGACTACTTTG  
 CCTGTGAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR231160 representing NM\_001271746  
Red=Cloning site Green=Tags(s)

MKGDSRHLNEEGASGYEECIIVNGNFSQSSDTKDAPSPVLEAICTEPVCTPETRGRSSSRLSKREV  
 SLLNLTQDMTGDGDRDDEVDDNGSDILMPKL TRETKDTRTRSESPAVRTRHSNGTSSLERQASPRIT  
 RGRQGRHHVQEYPVEFPATRSRRRRASSASTPWSSPASVDFMEEVTPKSVSTPSVDLSQDGDQEGMDTT  
 QVDAESRDGDSTEYQDDKEFGIGDLVWGKIKGFSWVWPAMVVSWKATSKRQAMPGMRVWFQFDGKFS  
 ADKLVALGLFSQHFNLATFNKLVSYRKAMYHTLEKARVRAGKTFSSSPGESLEDQLKPMLEWAHGGFKPT  
 GIEGLKPNKKQPVVNKSIVRRSDSRNLEPRRRENKSRRTTNDASAASESPPPKRLKTNVSYGKDRGEDEE  
 SRERMASEVTNKNLEDRCLSCGKKNPVSFHPLFEGGLCQSCRDRFLELFMYDEDEGYQSYCTVCCCEGR  
 ELLLCNTSCRCFCVECLEVLVGAGTAEDAKLQEPWSCYMCLPQRCHGVLRRRKDWNMRLQDFFTTDPD  
 LEEFEPKLYPAIPAAKRRPIRVLVSLFDGIATGYLVKELGKVEKYIASEVCAESI AVGTVKHEGQIKY  
 VNDVRKITKKNIEEWGPFDLVIGGSPCNLSNVNPAKGLYEGTGRLFFEFYHLLNTRPKEDNRPFFW  
 MFENVVAMKVNDKKDISRFLACNPVMIDAIVKSAHRARYFWGNLPGMNRIFGFPAHYTDVSNMGRGARQ  
 KLLGRSWSVPVIRHLFAPLKDYFACE

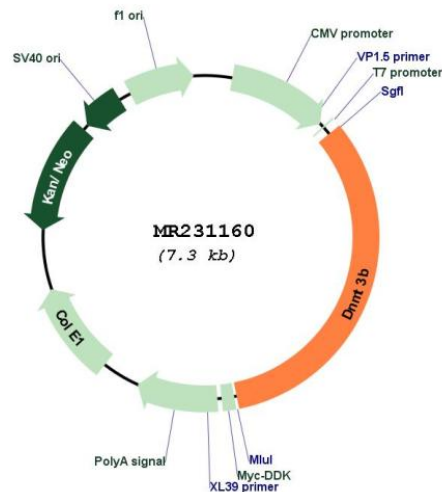
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfi-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_001271746

**ORF Size:** 2388 bp

**OTI Disclaimer:** 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\\_001271746.1](#), [NP\\_001258675.1](#)

**RefSeq Size:** 4037 bp

**RefSeq ORF:** 2391 bp

**Locus ID:** 13436

**Cytogenetics:** 2 H1

**MW:** 90.5 kDa

**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]