

Product datasheet for **MC229641**

Dnmt1 (NM_001199431) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dnmt1 (NM_001199431) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Dnmt1
Synonyms:	Cxxc9; Dnmt; Dnmt1o; m.Mmul; MCMT; Met-1; Met1; MommeD; MommeD2; MTa; MTase
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC229641 representing NM_001199431 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGC**C

ATGCCAGCGGAACAGCTCCAGCCCGAGTGCCTGCGCTTGCTCCCCGGCAGGCTCGCTCCCGGACCATG
TCCGCAGGCGGCTCAAAGACTTGGAAAGAGATGGCTTAACAGAAAAGGAGTGTGTGAGGGAGAAATTA
CTTACTGCATGAATTCCTGCAAACAGAAATAAAAAGCCAGTTGTGTGACTTGGAAACCAATTACATAAA
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CCATCACGGCTCACTTCACGAAGGGCCCCACTAAACGGAAACCAAGGAAGAGTCGGAAGAGGGGAACTC
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GAATACATTTTGTGAGGCCAGCAAAGAGTATGAGCCAATTTTGGGCTGATGCAGGAGAAAATTTACA



TCAGCAAGATTGTTGTTGAGTTCCTGCAAAACAATCCTGATGCTGTATATGAAGACCTGATCAATAAGAT
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 AGGCAGCTGCGAGGATCACACTACCAGCCATCCTCAGGACCATATCTGCAAGGACATGAGCCCACTGG
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 AGCACCGGTGCCCTGCGTGGAGTCTGTTCTGTGAGAAGGCAAGGCCTGCGACCCTGAGTCCAGGCAAT
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 GCTACCGTCTTTCGGCAACATCCTGGACAGACACCGGCAGTGGGTAATGCTGTGCCACCACCCCTGCC
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	Sgfl-Mlul
ACCN:	NM_001199431
Insert Size:	4863 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<u>NM_001199431.1</u> , <u>NP_001186360.2</u>
RefSeq Size:	5370 bp
RefSeq ORF:	4863 bp
Locus ID:	13433
UniProt ID:	<u>P13864</u>
Cytogenetics:	9 7.66 cM
Gene Summary:	<p>This gene encodes a methyltransferase that preferentially methylates cytosines of CpG residues in hemimethylated DNA to generate fully methylated CpG base pairs during DNA replication. This enzyme plays roles in diverse cellular processes including cell cycle regulation, DNA repair, and telomere maintenance. The encoded protein is composed of an N-terminal domain with a nuclear localization sequence and replication fork-targeting domain, a DNA-binding CXXC domain, two bromo-adjacent homology domains, and a C-terminal catalytic domain. Mouse embryonic stem cells mutant for this gene are viable, but when introduced into the germ line, cause a recessive lethal phenotype with mutant embryos displaying stunted growth and developmental defects. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]</p> <p>Transcript Variant: This variant (1) encodes the longest protein (isoform 1). This variant has two upstream in-frame AUGs but N-terminal sequencing and western analysis from PMID: 9830015 (Table I and Figure 2) support the use of the third in-frame AUG.</p>