

Product datasheet for MC229609

Dnmt1 (NM_001199432) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dnmt1 (NM_001199432) 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:	>MC229609 representing NM_001199432 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCAGACTCAAATAGATCCCCAAGATCCAGGCCAAGCCTCGGGGACCCAGGAGAAGCAAGTCGGACA
GTGACACCCTTTTGAACCTTACCTAGTTCGGTACGAGGAGAACCACCAGGCAGACCACCATCAC
GGCTCACTTACGAAGGGCCCACTAAACGGAAACCAAGGAAGAGTCGGAAGAGGGGAAGTTCGGCTGAG
TCGGCTGCAGAGGAGAGAGACCAGGATAAGAAACGCAGAGTTGTAGACACAGAGAGTGGTCTGCAGCTG
CTGTGGAGAACTGGAAGAGGTAAACAGCGGAAACCCAGCTGGGTCCGGAAGAGCCATGTGAACAGGAAGA
TGACAACAGGAGTCTTCGACGTACACCAGAGAGCTATCATTGAGGCGGAAATCAAAGGAGGATCCAGAC
AGAGAAGCAAGACCGGAACTCACTTGGACGAGGACGAGGACGGAAAAAGGATAAAAAGAAGTTCAGAC
CCAGGAGCCAGCCAGAGATCCAGCTGCCAAACGGAGACCCAAGGAAGCAGAGCCAGAGCAGGTAGCTCC
AGAGACTCCCAGGACAGAGACGAGGATGAGAGGGAGGAGAAGAGACGAAAAACGACACGTAAAAACTG
GAGTCACACACCGTTCCCGTTCAGAGCAGATCGGAGAGAAAAGCCGCTCAAAGCAAAAGTGTGATCCCGA
AGATCAACTACCAAAGTGCCCGAGTGTGGCCAGCACCTAGACGACCCTAACCTGAAGTACCAGCAGCA
CCCTGAGGATGCTGTGGATGAACCCAGATGTTGACCAGTGAGAAACTGTCCATCTACGACTCCACCTCG
ACCTGTTTTGATACTTATGAAGATTCTCCCATGCATAGGTTCACTTCTTCACTGTGTACTGCACTGCGG
GGCACCTGTGCTGTCGACACCGGTCTCATTGAGAAGATGTAGAGCTCTACTTTTCTGGGTGTGCCAA
AGCAATTCATGACGAGAATCCATCTATGGAAGGTGGTATTAATGGCAAAACCTCGGGCCAAATCAATCAG
TGGTGGCTCAGTGGCTTTGATGGTGGCAGAAAGGTGCTCATTGGCTTCTCCACTGCATTTGCTGAATACA
TTTTGATGGAGCCAGCAAAGAGTATGAGCCAATATTTGGGCTGATGCAGGAGAAAATTTACATCAGCAA
GATTGTTGTTGAGTTCCTGCAAAACAATCTGATGCTGTATATGAAGACCTGATCAATAAGATTGAGACC
ACTGTTCTCTTCTACCATTAATGTGAACCGGTTACAGAGGACTCCCTTACGCCACGCCAGTTTGTG
TAGTGAGCCAGGTAGAGAGTTACGACGAAGCCAAGGACGATGATGAGACCCCATCTTCTGTCTCCCTG
TATGAGAGCCCTGATCCATTTGGCTGGTGTCTCCCTGGGACAGAGGCGAGCAACAAGGCGCGTCATGGGT
GCTACCAAGGAGAAGGACAAAGCACCCAGAAAGCCACCACCACCAAGCTGGTCTATCAGATCTTTGACA



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CTTTCTTCTCAGAGCAGATTGAGAAGTATGATAAGGAGGACAAGGAGAATGCCATGAAGCGCCGCCGCTG
 TGGTGTCTGTGAGGTCTGTGAGCAGCCTGAGTGTGGGAAGTGCAAGGCGTGCAAAGATATGGTGAAGTTT
 GGTGGCACTGGACGGAGTAAGCAGGCTTGCCTCAAGAGGAGGTGTCTAACTTGGCGGTGAAGGAGGCAG
 ACGACGATGAAGAGGCTGATGATGATGTGTGAGAGATGCCATCACCCAAAAGCTGCATCAGGGGAAGAA
 GAAGAAGCAGAACAAGGACCGCATCTCTGGCTTGGGCAGCCTATGAAGATTGAAGAGAATAGAACTTAC
 TATCAGAAGGTGAGCATCGATGAGGAGATGTAGAGGTGGGCGACTGCGTCTCGGTATTCCAGATGATT
 CCTCCAAAACCACTCTATCTAGCCAGGTCACAGCTCTGTGGGAAGACAAAAATGGTCAGATGATTCCA
 TCGCAGCTGGTTCTGCGCTGGGACAGACACAGTCTGGGAGCCACCTCCGACCCCTGGAACCTGTTCTCTG
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 CTGAAAACCTGGCCATGGAGGGAGGCACAGACCCTGAGACCACACTGCCTGGGGCTGAGGATGGCAAGAC
 TTACTTCTCCAGCTCTGGTACAACCAGGAGTACGCAAGGTTTGAATCCCAACCAAGACCCAGCCGACC
 GAGGACAACAAGCACAAGTTCTGCCTATCTTGTATCCGGCTGGCTGAGCTGAGACAAAAAGAAATGCCCA
 AGGTCTGGAACAAATTGAGGAGGTGGATGGCCGGGTCTACTGCAGTTCATACCAAGAATGGTGTGTG
 CTACCGACTGGGTGACAGTGTGTACCTTCTCCGAGGCCCTTACTTTCAACATCAAAGTGGCTAGCCCC
 GTGAAACGCCCAAAGAAGGATCCTGTGAACGAGACCCTGTACCCTGAGCACTACCCAAGTATTCTGACT
 ACATCAAGGGGAGCAACCTGGATGCTCCAGAGCCCTATCGCATCGGTCCGATAAAAAGAGATCCACTGTGG
 CAAGAAGAAAGGCAAGGTCAACGAGGCAGACATCAAGCTGAGGCTCTACAAGTTCTACAGCCCTGAGAAT
 ACCCACAGGTCTACAACGGATCCTATCACACTGACATCAACATGCTTTACTGGAGCGACGAGGAAGCTG
 TGGTGAACCTCAGCGACGTGCAGGGCCGCTGTACCCTGGAGTACGGGGAAGACCTACTTGAGAGCATCCA
 GGATTATTCACAAGGGGGCCCTGACCGCTTCTACTTCTCGAGGCCTACAATTCAAAGACCAAGAAGCTTT
 GAAGACCCACCAAAACCATGCCCGCAGCCCTGGGAACAAAGGAAAGGGAAGGGGAAGGGGAAGGGGAAGG
 GGAAGCATCAGGTGTGAGAGCCAAAGAGCCTGAGGCAGCCATCAAACCTGCCAAGCTCCGAGCCCTGGA
 GTGTTTTCCGGCTGTGGAGGTTATCGGAAGGATTCCACCAAGCAGGCATCTCGGAAACGCTGTGGGCC
 ATCGAGATGTGGACCCCGCAGCCAGGCATTTCCGGCTGAACAACCCCGCACCACAGTGTTCACAGAGG
 ACTGCAACGTGCTTCTTAAGCTGGTCTGCTGGGAGGTGACCAACTCTCTGGGCCAAAGGCTGCCACA
 GAAGGGCGATGTGGAGATGCTGTGTGGTGGGCCACCCTGCCAGGGCTTCAAGTGGCATGAACCGCTTCAAC
 TCCCGCACTTACTCCAAGTTCAAAAACCTCCTAGTGGTCTCCTTCTCAGCTACTGTGACTACTACCGGC
 CTCGGTCTTCTTCTGGAGAACGTGAGAACTTCTGTCTACAGACGCTCCATGGTGTGAAAGCTCAC
 ACTGCGCTGCCTGGTCCGCATGGCTACCAGTGCACCTTGGTGTGCTCCAGGCTGGACAGTATGGCGTG
 GCCCAGACACGAAGGAGGGCCATCATCTGGCTGCAGCCCAAGGAGAAAAGCTGCCTCTGTTCCAGAGC
 CTCTGCATGTGTTTGGCCCCGTGCCTGCCAGCTGAGCGTTGTGGTGGATGACAAGAAGTTGTTAGCAA
 CATAACGAGGCTGAGCTCGGGGCCCTCCGAACCATCACCGTGGGAGACACCATGTCTGACTCCCGGAG
 ATCCAGAATGGAGCCTCGAATTCTGAGATCCCCTACAATGGAGAGCCACTGTCCTGGTTCAGAGGCGAGC
 TGCGAGGATCACACTACCAGCCATCCTCAGGGACCATATCTGCAAGGACATGAGCCCACTGGTGGCTGC
 CCGCATGCGGCACATCCCACTGTTCCAGGATCAGATTGGCGTGACCTGCCCAACATACAGGTGCGGCTG
 GGAGATGGCGTCATAGCCATAAGCTACAGTACACCTTTCATGATGTGAAAAATGGCTACAGCAGCACCG
 GTGCCCTGCGTGGAGTCTGTTCTGTGCAGAAGGCAAGGCTGCGACCCTGAGTCCAGGCAATTACAGCAC
 CCTCATCCCCTGGTGCCTGCCGACACTGGGAACCGGCACAACCCTGGGCTGGCCTCTACGGGCGTCTG
 GAGTGGGATGGCTTCTTACAGCAACTGTCACCAACCTGAGCCCATGGGCAAGCAGGCTGGGCTGCTCC
 ACCCGGAGCAGCACCGGGTCTGTGAGTGTTCGGGAATGTGCCCGCTCCAGGGCTTTCCAGATAGTACCG
 GTTCTTCCGCAACATCCTGGACAGACACCGGCAGGTGGTAATGCTGTGCCACCACCCCTGGCCAAGCC
 ATTGGCCTGGAGATTAAGCTCTGCCTGCTGCCAGTGTCCAGTGTCCGGAGAGCGCATCAGCTGCAGTTAAAGCAA
 AAGAGGAGGCTGCTACCAAGGACTAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001199432
Insert Size: 4506 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_001199432.1</u> , <u>NP_001186361.1</u>
RefSeq Size:	5251 bp
RefSeq ORF:	4506 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 (3) uses an alternate first exon, which results in the use of a downstream start codon, and an alternate in-frame splice site compared to variant 1. The resulting protein (isoform 3) has a shorter N-terminus compared to isoform 1.</p>