

Product datasheet for MC229610

Dnmt1 (NM_001199433) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dnmt1 (NM_001199433) 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:	>MC229610 representing NM_001199433 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGCAGACTCAAATAGATCCCCAAGATCCAGGCCAAGCCTCGGGGACCCAGGAGAAGCAAGTCGGACA
GTGACACCCTTTAGTTGAACTTCACCTAGTTCCGTGGTACGAGGAGAACCACCAGGCAGACCACCAT
CACGGCTCACTTCACGAAGGGCCCCACTAAACGGAAACCAAGGAAGAGTCGGAAGAGGGGAAGTTCGGCT
GAGTCGGCTGCAGAGGAGAGAGACCAGGATAAGAAACGCAGAGTTGTAGACACAGAGAGTGGTGTGCAG
CTGCTGTGGAGAACTGGAAGAGGTAACAGCGGGAACCCAGCTGGGTCCGGAAGGCCATGTGAACAGGA
AGATGACAACAGGAGTCTTCGACGTACACCAGAGAGCTATCATTGAGGCGGAAATCAAAGGAGGATCCA
GACAGAGAAGCAAGACCGGAACTCACTTGGACGAGGACGAGGACGGAAGGATAAAAGAAGTTCCA
GACCCAGGAGCCAGCCAGAGATCCAGCTGCCAAACGGAGACCAAGGAAGCAGAGCCAGAGCAGGTAGC
TCCAGAGACTCCCGAGGACAGAGACGAGGATGAGAGGGAGGAGAAGACGAAAAACGACACGTAAGGATCC
CTGGAGTCACACACCGTTCCCGTTCAGAGCAGATCGGAGAGAAAAGCCGCTCAAAGCAAAAGTGTGATCC
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GCACCCTGAGGATGCTGTGGATGAACCCAGATGTTGACCAAGTGAAGAACTGTCCATCTACGACTCCACC
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CAAAGCAATTCATGACGAGAATCCATCTATGGAAGGTGGTATTAATGGCAAAAACCTCGGGCCAATCAAT
CAGTGGTGGCTCAGTGGCTTTGATGGTGGCGAGAAGGTGCTCATTGGCTTCTCCACTGCATTTGCTGAAT
ACATTTTGTGAGGCCAGCAAAGAGTATGAGCCAATATTTGGGCTGATGCAGGAGAAAAATTCATCAG
CAAGATTGTTGTTGAGTTCCTGAAAACAATCCTGATGCTGTATGAAGACCTGATCAATAAGATTGAG
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GGTGTACCAAGGAGAAGGACAAAGCACCCACGAAAGCCACCACCACCAAGCTGGTCTATCAGATCTTTG



ACACTTTCTTCTCAGAGCAGATTGAGAAGTATGATAAGGAGGACAAGGAGAATGCCATGAAGCGCCGCCG
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 TTTGGTGGCACTGGACGGAGTAAGCAGGCTTGCCTCAAGAGGAGGTGTCTAACTTGGCGGTGAAGGAGG
 CAGACGACGATGAAGAGGCTGATGATGATGTGTGTCAGAGATGCCATCACCCAAAAGCTGCATCAGGGGAA
 GAAGAAGAAGCAGAACAAGGACCGCATCTCTGGCTTGGGCAGCCTATGAAGATTGAAGAGAATAGAAT
 TACTATCAGAAGGTGAGCATCGATGAGGAGATGCTAGAGGTGGGCGACTGCGTCTCGGTCAATCCAGATG
 ATTCTCCAACCACTCTATCTAGCCAGGTCACAGCTCTGTGGGAAGACAAAAATGGTCAGATGATGTT
 CCATGCGCACTGGTTCTGCGCTGGGACAGACACAGTCTGGGAGCCACCTCCGACCCCTGGAACGTGTT
 CTGGTGGGCGAGTGCGAAAACATGCAGCTTTCCTACATCCACAGCAAGGTCAAGTTCATCTACAAAGCCC
 CTTCTGAAAACCTGGGCCATGGAGGGAGGCACAGACCCTGAGACCACACTGCCTGGGGCTGAGGATGGCAA
 GACTTACTTCTCCAGCTCTGGTACAACCAGGAGTACGCAAGGTTTGAATCCCCACCCAAGACCCAGCCG
 ACCGAGGACAACAAGCACAAGTTCTGCCTATCTTGTATCCGGCTGGCTGAGCTGAGACAAAAAGAAATGC
 CCAAGGTCTGGAACAAATTGAGGAGGTGGATGGCCGGTCTACTGCAGTCCATCACCAAGAATGGTGT
 TGTCTACCGACTGGGTGACAGTGTGTACCTTCTCCCGAGGCCTTACTTCAACATCAAAGTGGCTAGC
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 ACTACATCAAGGGGAGCAACCTGGATGCTCCAGAGCCCTATCGCATCGGTGCGATAAAAGAGATCCACTG
 TGGCAAGAAGAAAAGGCAAGGTCAACGAGGCAGACATCAAGCTGAGGCTCTACAAGTTCTACAGGCCTGAG
 AATACCCACAGGTCTACAACGGATCCTATCACACTGACATCAACATGCTTACTGGAGCGACGAGGAAG
 CTGTGGTGAACCTCAGCGACGTGACGGCCGCTGTACCGTGGAGTACGGGGAAGACCTACTTGAGAGCAT
 CCAGGATTATTCACAAGGGGGCCCTGACCGCTTACTTCTCGAGGCCTACAATTCAAAGACCAAGAAC
 TTTGAAGACCCACCAACCATGCCCGCAGCCCTGGGAACAAGGGAAAGGGAAAGGGAAAGGGAAAGGGGA
 AGGGGAAGCATCAGGTGTGAGAGCCAAAGAGCCTGAGGCAGCCATCAAAGTCCCAAGCTCCGGACCT
 GGATGTGTTTTCCGGCTGTGGAGGTTATCGGAAGGATTCCACCAAGCAGGCATCTCGGAACGCTGTGG
 GCCATCGAGATGTGGGACCCGGCAGCCAGGCATTTCCGGCTGAACAACCCGGCACCACAGTGTTCACAG
 AGGACTGCAACGTGCTTCTTAAGCTGGTATGGCTGGGAGGTGACCAACTCTCTGGGCAAAGGCTGCC
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 AACTCCCGCACTTACTCCAAGTTCAAAAACCTCCCTAGTGGTCTCCTTCTCAGCTACTGTGACTACTACC
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 CACACTGCGCTGCCTGGTCCGCATGGGCTACCAGTGCACCTTTGGTGTGCTCCAGGCTGGACAGTATGGC
 GTGGCCAGACACGAAGGAGGGCCATCATCTGGCTGCAGCCCCAGGAGAAAAGTGCCTCTGTTCCCAG
 AGCCTCTGCATGTGTTTGCGCCCGTGCCTGCCAGCTGAGCGTTGTGGTGGATGACAAGAAGTTTGTAG
 CAACATAACGAGGCTGAGCTCGGGGCCCTTCCGAACCATCACCGTGCAGACACCATGTCTGACCTCCCC
 GAGATCCAGAATGGAGCCTCGAATTCTGAGATCCCTACAATGGAGAGCCACTGTCTGGTTCCAGAGGC
 AGCTGCGAGGATCACACTACCAGCCATCCTCAGGGACCATATCTGCAAGGACATGAGCCCACTGGTGGC
 TGCCCGCATGCGGCACATCCCCTGTTCCAGGATCAGATTGGCGTGACCTGCCAACATACAGGTGCGG
 CTGGGAGATGGCGTCATAGCCATAAGCTACAGTACACCTTTTATGATGTGAAAAATGGCTACAGCAGCA
 CCGGTGCCCTGCGTGGAGTCTGTTCTGTGCAGAAGGCAAGGCCTGCGACCCCTGAGTCCAGGCAATTCAG
 CACCCTCATCCCCTGGTGCCTGCCGCACACTGGGAACCGGCACAACCCTGGGCTGGCCTCTACGGGCGT
 CTGGAGTGGGATGGCTTCTTACGACCACTGTACCAACCCTGAGCCCATGGGCAAGCAGGCTCGGGTGC
 TCCACCCGGAGCAGCACCGGGTCTGTGAGTGTTCGGGAATGTGCCGCTCCAGGGCTTCCAGATAGCTA
 CCGGTTCTTCGGCAACATCCTGGACAGACACCGGAGGTGGGTAATGCTGTGCCACCACCCTGGCCAAA
 GCCATTGGCTGGAGATTAAGCTCTGCCTGCTGTCCAGTGTGCGGAGAGCGCATCAGCTGCAGTTAAAG
 CAAAAGAGGAGGCTGCTACCAAGGACTAG

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001199433
Insert Size: 4509 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_001199433.1</u> , <u>NP_001186362.1</u>
RefSeq Size:	5876 bp
RefSeq ORF:	4509 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 (4) uses an alternate first exon, which results in use of a downstream start codon compared to variant 1. The resulting protein (isoform 4) has a shorter N-terminus than isoform 1.</p>