

Product datasheet for **SC325419**

DNMT1 (NM_001130823) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DNMT1 (NM_001130823) Human Untagged Clone
Tag:	Tag Free
Symbol:	DNMT1
Synonyms:	ADCADN; AIM; CXXC9; DNMT; HSN1E; m.Hsal; MCMT
Mammalian Cell Selection:	Neomycin
Vector:	<u>PCMV6-Neo</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001130823, the custom clone sequence may differ by one or more nucleotides

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ATGCCGGCGCGTACCGCCCGAGCCGGGTGCCACACTGGCCGTCGCCGATCTCGCTG
CCCGACGATGTCCGACGCGGCTCAAAGATTTGGAAAGAGACAGCTTAACAGAAAAGGAA
TGTGTGAAGGAGAAATTGAATCTTGCACGAATTTCTGCAAACAGAAATAAAGAATCAG
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AAAGTCAAATCCCTTTTAAATAAAGATTTGTCCTTGGAGAACGGTGTCTCATGCTTACAAC
CGGGAAGTGAATGGACGTCTAGAAAACGGGAACCAAGCAAGAAGTGAAGCCCGTAGAGTG
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AGCAAGTCCGATGGAGAGGCTAAGCGTTCAAGAGACCCTCCTGCCTCAGCCTCCCAAGTA
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CACAACTGACCTGCTTCAAGTGTACTGTAAGCACGGTACCTGTGTCATCGACACC
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GAATACATTCTGATGGATCCCAGTCCCAGTATGCGCCCATATTTGGGCTGATGCAGGAG
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 TGCGACCCCGCAGCCAGGCGAGTTCAACACCCTCATCCCTGGTGCCTGCCCCACACCGGG
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ACAACCGTCACCAACCCCGAGCCCATGGGCAAGCAGGGCCGCGTGCTCCACCCAGAGCAG
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 CTCTTCGGCAACATCCTGGACAAGCACCAGGCGAGGTGGGCAATGCCGTGCCACCGCCCTG
 GCCAAAGCCATTGGCTTGGAGATCAAGCTTTGTATGTTGGCCAAAGCCCGAGAGAGTGCC
 TCAGCTAAAATAAAGGAGGAGGAAGCTGCTAAGGAC

Restriction Sites:	Please inquire
ACCN:	NM_001130823
Insert Size:	5300 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 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
OTI Annotation:	The ORF of this clone has been fully sequenced and found to contain one SNP compared with NM_001130823.1.
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:	NM_001130823.1 , NP_001124295.1
RefSeq Size:	5425 bp
RefSeq ORF:	4899 bp
Locus ID:	1786
UniProt ID:	P26358
Cytogenetics:	19p13.2
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Cysteine and methionine metabolism, Metabolic pathways

Gene Summary:

This gene encodes an enzyme that transfers methyl groups to cytosine nucleotides of genomic DNA. This protein is the major enzyme responsible for maintaining methylation patterns following DNA replication and shows a preference for hemi-methylated DNA. Methylation of DNA is an important component of mammalian epigenetic gene regulation. Aberrant methylation patterns are found in human tumors and associated with developmental abnormalities. Variation in this gene has been associated with cerebellar ataxia, deafness, and narcolepsy, and neuropathy, hereditary sensory, type IE. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2016]

Transcript Variant: This variant (1, also known as Dnmt1b in PMIDs 10449766 and 10753866) represents the longest transcript and encodes the longest isoform (a).