

Product datasheet for SC309900

DNMT1 (NM_001379) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DNMT1 (NM_001379) Human Untagged Clone
Tag:	Tag Free
Symbol:	DNMT1
Synonyms:	ADCADN; AIM; CXXC9; DNMT; HSN1E; m.Hsal; MCMT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC309900 representing NM_001379. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTGTGAAACCGTCAGAATTTGTAAACGACTACTATAGGGCGCCGGGAATTCGTCGACTG
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 TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites:	Sgfl-Mlul
Plasmid Map:	□
ACCN:	NM_001379
Insert Size:	4851 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:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_001379.3
RefSeq Size:	5422 bp
RefSeq ORF:	4851 bp
Locus ID:	1786
UniProt ID:	P26358
Cytogenetics:	19p13.2
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Cysteine and methionine metabolism, Metabolic pathways
MW:	183.2 kDa

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 (2, also known as Dnmt1a in PMIDs 10449766 and 10753866) lacks an alternate in-frame exon in the 5' coding region compared to variant 1. The resulting isoform (b) is shorter than isoform a.