

## Product datasheet for MR212057

### Dnmt1 (BC053047) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Dnmt1 (BC053047) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dnmt1
Synonyms:	Dnmt, MTase, Dnmt1o
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR212057 representing BC053047 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCAGCGGAACAGCTCCAGCCGAGTGCCTGCGCTTGCCTCCCCGGCAGGCTCGCTCCCGACCATG  
TCCGCAGGCGGCTCAAAGACTTGGAAAGAGATGGCTTAACAGAAAAGGAGTGTGTGAGGGAGAAATTA  
CTTACTGCATGAATTCCTGCAAACAGAAATAAAAAGCCAGTTGTGTGACTTGGAAACCAATTACATAAA  
GAGGAATTATCTGAGGAAGGCTACCTGGCTAAAGTCAAGTCCCTCTAAATAAGGATTTGCCTTGGAGA  
ACGGAACACACACTCTCACTCAAAAAGCCAACGGTTGTCCGCCAACGGGAGCCGCCAACCTGGAGAGC  
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GACAGTGACACCCCTTTGTAAGGACACGAGACATACTGCAGTTGAAACTTCACCTAGTTCCTGGCTACGA  
GGAGAACCACCAGGCAGACCACCATCACGGCTCACTTCACGAAGGGCCCCACTAAACGGAACCCAAAGGA  
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GCCGCTCAAAGCAAAAGTGTGATCCCGAAGATCAACTACCAAAGTGCCCGAGTGTGGCCAGCACCTAG  
ACGACCTAACCTGAAGTACCAGCAGCACCTGAGGATGCTGTGGATGAACCCAGATGTTGACCAGTGA  
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TAGAGCTCTACTTTCTGGGTGTGCCAAAGCAATTCATGACGAGAATCCATCTATGGAAGGTGGTATTAA  
TGCAAAAACCTCGGGCAATCAATCAGTGGTGGCTCAGTGGCTTGTGGTGGCGAGAAGGTGCTCATT



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**Protein Sequence:** >MR212057 representing BC053047  
 Red=Cloning site Green=Tags(s)

MPARTAPARVPALASPAGSLPDHVRRRLKDLERDGLTEKECVREKLNLLHEFLQTEIKSQLCDLETKLHK  
 EELSEEGYLAKVKSLLNKDLSENGHTLTLQKANGCPANGSRPTWRAEMADSNRSPRSRKPGRPRRSKS  
 DSDTLCKDTRHTAVETSPSSVATRRTRTQTITAHFTKGPTRKPKKEESEEGNSAAEAEERDQDKKRRV  
 VDTESGAAAAVEKLEEVTAGTQLGPEEPCEQEDDNRSRRHTRELSLRKSKEDPDREARPEHLDEDED  
 GKDKRSSRPRSQPRDPAAKRRPKAEPEQVAPETPEDRDEREEKRRKTRKKLESHTVPVQSRSEK  
 AAQSKSVIPKINSPKCEPCGQHLDDPNLKYQHPEDAVIDEPQMLTSEKLSIYDSTSTWFDYEDSPMHRF  
 TSFSVYCSRGHLCVDTGLIEKNVELYFSGCAKAIHDENPSMEGGINGKNLGPINQWWLSGFDGGEKVL  
 GFSTAFAYEILMEPSKEYEPIFGLMQEKIYISKIVVEFLQNNPDVYEDL INKIETTVPSTINVNRFT  
 DSLLRHAQFVVSQVSYDEAKDDDETPIFLSPCMRALIHLAGVSLGQRRATRRVMGATKEKDKAPTATT  
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 CPNLAVKEADDDDEADDDVSEMPSPKHLHQGKKKQNKDRISWLQPMKIEENRTYYQKVSIDEEMLEVG  
 DCVSVIPDDSSKPLYLARVTALWEDKNGQMMFHAWFCAGTDTVLGATSDPLELFLVGECEMQLSYIHS  
 KVKVIYKAPSENWAMEGGTDPETTLPGAEDGKTYFFQLWYNQYARFESPPKTPQTEDNKHKFLCSIRL  
 AELRQKEMPKVLEQIEEVDGRVYCSSITKNGVYVRLGDSVYLPPEAFTFNIKVASPVKRPKDPVNETLY  
 PEHYRKYSYDIKGSNLDAPEPYRIGRIKEIHCCKKGVNEADIKLRLYKFRPENTHRSYNGSYHTDIN  
 MLYWSDEEAVVNFSDVQGRCTVEYGEDLLESIQDYSQGGPDRFYFLEAYNSKTKNFEDPPNHARSPGNK  
 KGKGGKGGKGGKHQVSEPKEPEAAIKLPLRLDVFSGCGGLSEGFMHQAQAGISETLWAIEMWDPAAQAFRLN  
 NPGTTVFTEDCNVLKLMAGEVTNSLQRLPQKGDVEMLCGGPPCQGFSGMNRNFSRTYSKFNLSLVV  
 FLSYCDYYRPRFFLEENVRNFSYRRSMVLKLTCLVVMGYQCTFGVLQAGQYGAQTRRRRAIILAAAP  
 GEKPLFPEPLHVFAPRACQLSVVVDKGFVSNITRLSSGPFRTITVRDMSDLPEIQNGANSSEIPYNG  
 EPLSWFQRQLRGSHYQPILRDHICKDMSPLVAARMRHIPLFPGSDWRDLNIIQVRLGDGVI AHKLQYTFH  
 DVKNGYSSTGALRGVCSAEGKACDPESRQFSTLIPWCLPHTGNRHNHWAGLYGRLEWDGFFSTTVTNP  
 PMGKQGRVLHPEQHRVSVRECARSQGFPDSYRFFGNILDRHRQVGNVPPPLAKAIGLEIKLCLLSSAR  
 ESASAAVKAKEEAATKD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9075\\_b11.zip](https://cdn.origene.com/chromatograms/mm9075_b11.zip)

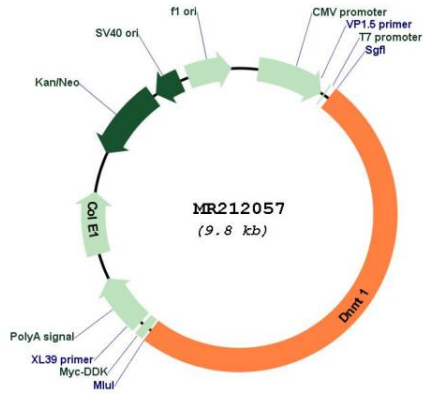
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



ACCN:	BC053047
ORF Size:	4881 bp
OTI Disclaimer:	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. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
RefSeq:	<a href="#">BC053047.1</a>
RefSeq Size:	5249 bp
RefSeq ORF:	4883 bp
Locus ID:	13433
Cytogenetics:	9 7.66 cM
MW:	184 kDa
Gene Summary:	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]

Product images:



Circular map for MR212057