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Product datasheet for RC208363

Dnmt2 (TRDMT1) (NM_004412) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dnmt2 (TRDMT1) (NM_004412) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dnmt2
Synonyms:	DMNT2; DNMT2; MHSAIIP; PUMET; RNMT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC208363 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGCCCCTGCGGGTGCTGGAGCTATACAGCGGCGTGGGCGGCATGCACCACGCGCTGAGAGAAAGCT
GTATACCTGCACAAGTGGTGGCTGCCATTGATGTCAACACTGTCGCTAATGAAGTATACAAGTATAATTT
TCCTCACACACAGTTACTTGCCAAGACAATTGAAGGCATTACACTCGAAGAGTTTGACAGATTATCTTTC
GATATGATTTTAATGAGCCCTCCCTGCCAGCCATTCACAAGGATTGGCCGGCAGGGTGATATGACTGATT
CAAGGACGAATAGCTTCTTATATATTCTAGATATTCTCCCAAGATTACAAAAATTACCAAAGTATATTCT
TTTGGAAAATGTTAAAGGTTTTGAAGTATCTTCTACAAGAGACCTCTTGATACAAACAATAGAAAATTGT
GGCTTTCAGTACCAAGAGTTTCTATTATCTCCAACCTCTCTTGGCATTCCAAATTCAAGGCTACGATATT
TTCTTATTGCAAAGCTTCAGTCAGAGCCATTACCCTTTCAAGCCCCTGGTCAGGTACTTATGGAGTTCCC
CAAAATTGAATCTGTACATCCACAAAAATATGCAATGGATGTAGAAAATAAAATTCAAGAAAAGAACGTT
GAACCAAATATTAGCTTTGATGGCAGCATACAGTGTTCTGGAAAAGATGCCATTCTTTTTAAGCTTGAAA
CTGCAGAAGAAATTCACAGGAAAAATCAACAAGATAGTGATCTCTCTGTGAAAATGCTAAAAGATTTTCT
TGAAGATGACACTGACGTGAACCAGTATCTTTTACCACCAAAGTCATTGCTGCGATATGCTCTTCTGTTA
GACATTGTTCAGCCCACTTGTAGAAGGTCCGTGTGCTTTACCAAAGGATATGGAAGCTACATAGAAGGGA
CAGGGTCTGTGTTACAGACTGCAGAGGATGTGCAGGTTGAGAATATCTACAAATCCCTTACCAATTTGTC
ACAAGAAGAACAGATAACAAAGCTGTTAATACTTAAACTGCGATATTTCACTCCTAAAGAAATAGCAAAT
CTCCTTGGATTTCCTCCAGAGTTCGGATTTCCTGAGAAGATAACAGTGAAACAGCGTTATCGCCTACTTG
GAAATAGTCTCAACGTGCATGTAGTAGCTAAACTAATCAAAATCTTATATGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC208363 protein sequence
Red=Cloning site Green=Tags(s)

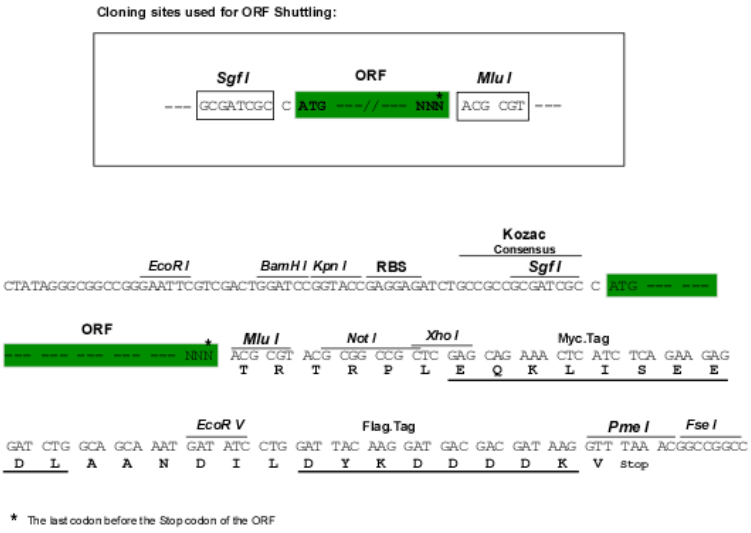
MEPLRVLELYSGVGGMHHALRESCIPAQVVAAIDVNTVANEVYKYNFPHTQLLAKTIEGITLEEFDRLSF
DMILMSPPCQPFTRIGRQGDMTDSRTNSFLYILDILPRLQKLPKYILLENVKGFEVSSTRDLLIQTIENC
GFQYQEFLLSPTSLGIPNSRLRYFLIAKLQSEPLPFQAPGQVLMEFPKIESVHPQKYAMDVENKIQEKNV
EPNISFDGSIQCSGKDAILFKLETAEEIHRKNQQDSDLSVKMLKDFLEDDTDVNQYLLPPKSLLRYALLL
DIVQPTCRRSVCFTKGYGSYIEGTGSVLQTAEDVQVENIYKSLTNLSQEEQITKLLILKLRYFTPKEIAN
LLGFPPEFGFPEKITVKQRYRLLGNSLNVHVVAKLIKILYE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6090_b11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004412

ORF Size: 1173 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. More info

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:
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_004412.7

RefSeq Size: 7687 bp

RefSeq ORF: 1176 bp

Locus ID: 1787

UniProt ID: O14717

Cytogenetics: 10p13

Domains: DNA_methylase

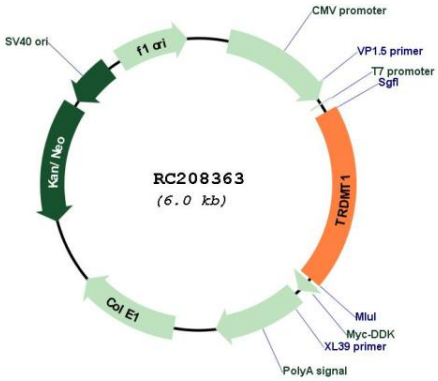
Protein Families: Druggable Genome

Protein Pathways: Cysteine and methionine metabolism, Metabolic pathways

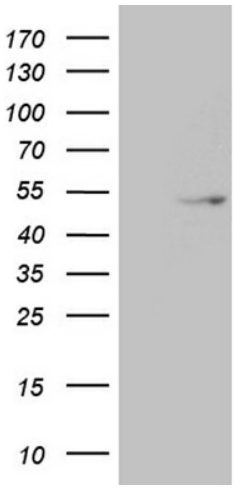
MW: 44.6 kDa

Gene Summary: This gene encodes a protein responsible for the methylation of aspartic acid transfer RNA, specifically at the cytosine-38 residue in the anticodon loop. This enzyme also possesses residual DNA-(cytosine-C5) methyltransferase activity. While similar in sequence and structure to DNA cytosine methyltransferases, this gene is distinct and highly conserved in its function among taxa. [provided by RefSeq, Jun 2010]

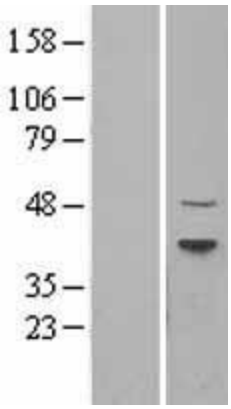
Product images:



Circular map for RC208363



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TRDMT1 (Cat# RC208363, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TRDMT1 (Cat# [TA811494])(1:2000). Positive lysates [LY401401] (100ug) and [LC401401] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401401]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208363 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).