

Product datasheet for RC207497

GNMT (NM_018960) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GNMT (NM_018960) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GNMT
Synonyms:	HEL-S-182mP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC207497 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTGGACAGCGTGTACCGGACCCGCTCCCTGGGGTGGCGGCCGAAGGGCTCCCGGACCAGTACGCGG
ACGGGGAGGCGGCGCGTGTGGCAGCTGTATATCGGAGACACCCGAGCCGACCGCCGAGTACAAGGC
ATGGCTGCTTGGGCTGCTGCGCCAGCACGGCTGCCAGCGGTGCTCGACGTAGCCTGTGGCACTGGGGT
GACTCCATTATGCTGGTGAAGAGGGCTTCAGTGTGACGAGTGTGGATGCCAGTGACAAGATGCTGAAGT
ATGCACCTAAGGAGCGCTGGAACCGGCGGCAGAGCCCGCCTTCGACAAGTGGGTCATCGAAGAAGCCAA
CTGGATGACTCTGGACAAAGATGTGCCAGTCAAGAGGGTGGCTTTGATGCTGTCTGCCTTGGAA
AACAGTTTCGCTCACTTGCCAGACTGCAAAGGGGACCAGAGTGAGCACCGGCTGGCGCTGAAAAATTG
CGAGCATGGTGGCGGCGAGGGGCTACTGGTCACTGATCATCGCAACTACGACCACATCCTCAGTACAGG
CTGTGACCCCCAGGGAAGAACAATAAGAGTGACTTGACCAAGGACGTCACAACATCAGTGCTG
ATAGTGAACAACAAGGCCACATGGTGACCCTGGACTATACGGTGCAGGTGCCGGGGCTGGCCAGGATG
GCTCTCCTGGCTTGAAGTTCGGCTCTCCTACTACCCACTGTCTGGCATCCTTACCGGAGCTGCT
CCAAGCAGCCTTCGGAGGTAAGTGCCAGCACAGCGTCTGGGCGACTTCAAGCCTTACAAGCCAGGCCAA
ACCTACATCCCTGCTACTTCATCCACGTGCTCAAGAGGACAGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC207497 protein sequence
Red=Cloning site Green=Tags(s)

MVDSVYRTRSLGVAAEGLPDQYADGEAARVWQLYIGDTRSRTAEYKAWLLGLLRQHGCQRVLDVACGTGV
 DSIMLVEEGFSVTSVDASDKMLKYALKERWNRHPEAFDKWVIEANWMTLDKDVPSAEGGFDAVICLG
 NSF AHL PDCKGDQSEHRLALKNIASMRAGLLVIDHRNYDHILSTGCAPPGKNIYYKSDLTKDVTTSVL
 IVNNKAHMVTLDTYVQVPGAGQDGGSPGLSKFRLSYYPHCLASFTELLQAAFGGKCQHSVLGDFKPYKPGQ
 TYIPCYFIHVLKRTD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6019_e03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_018960

ORF Size: 885 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_018960.6](#)

RefSeq Size: 1091 bp

RefSeq ORF: 888 bp

Locus ID: 27232

UniProt ID: [Q14749](#)

Cytogenetics: 6p21.1

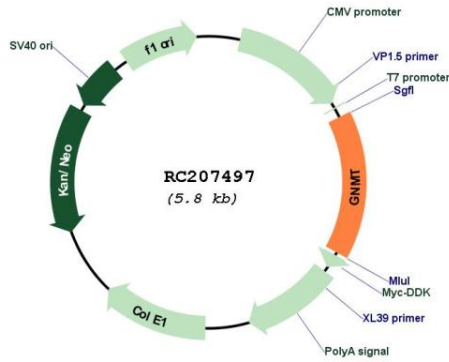
Protein Families: Druggable Genome

Protein Pathways: Glycine, serine and threonine metabolism

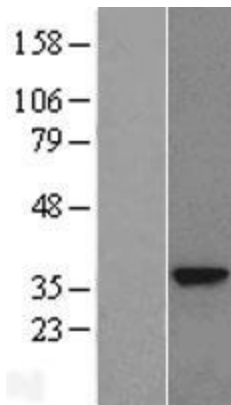
MW: 32.7 kDa

Gene Summary: The protein encoded by this gene is an enzyme that catalyzes the conversion of S-adenosyl-L-methionine (along with glycine) to S-adenosyl-L-homocysteine and sarcosine. This protein is found in the cytoplasm and acts as a homotetramer. Defects in this gene are a cause of GNMT deficiency (hypermethioninemia). Alternative splicing results in multiple transcript variants. Naturally occurring readthrough transcription occurs between the upstream CNPY3 (canopy FGF signaling regulator 3) gene and this gene and is represented with GeneID:107080644. [provided by RefSeq, Jan 2016]

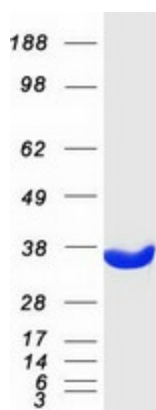
Product images:



Circular map for RC207497



Western blot validation of overexpression lysate (Cat# [LY412848]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207497 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GNMT protein (Cat# [TP307497]). The protein was produced from HEK293T cells transfected with GNMT cDNA clone (Cat# RC207497) using MegaTran 2.0 (Cat# [TT210002]).