

## Product datasheet for **RC201499**

### TRMT61B (NM\_017910) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TRMT61B (NM_017910) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TRMT61B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC201499 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCTAATGGCATGGTGC CGCGGTCTGTCTTGTGTGCCTGCGGCAGGGGCTCGGAACCAATTCATTCC  
 TGCACGGCTGGGGCAGGAGCCCTTCGAGGGAGCTCGGTCACTGTGTTCAGGTCCTCGCCTAGAGACCT  
 GCGAGATGGAGAAAGAGAGCACGAGGCGGCACAAAGAAAGCCCAAGGAGCAGAGTCTTGCCCATCTCTC  
 CCTCTGAGCATCTCGACATTGGGACTGGATGTCTTTCGTCAGTGGAAAACCTCAGACTGCCGACGCTGC  
 GGGAAAGAGTATCACCTCGAGAGCTCGAGGACTCGAGCGGAGACCAGGGCCGGTGC GGTCACACACCA  
 GGGATCCGAGGATCCTTCGATGCTCTCGCAGGCCAGTCCGCTATCGAGGTCGAAGAGCGTCACGCTCC  
 CCTTCTGTTCAACTCCAGAGAGAGACCCTTTCAGGCTGGGGAGCTGATTTAGCTGAGACTGGGGAGG  
 GAGAAACAAAATTAAGAAATTTAGGTTGAACAATTCGGACTCTTAATAGTAACTGGGGGCGAGT  
 CCCGTTCCGCAAGATCGTGGGGAAGTCCCGGCCAGATACTGAGGAGTTCCTTCGGTAAGCAGTACATG  
 CTGAGGAGGCCAGCCTTGAAGACTATGTAGTATTGATGAAAAGAGGGACTGCCATAACATTCCTCAAAGG  
 ATATTAATATGATTCTCTCAATGATGGATATCAACCCAGGTGATACTGTTTTGGAAGCTGGCTCAGGCTC  
 TGGTGGATGAGCTTATTTTTATCCAAAGCAGTTGGATCACAAGGACGAGTCATAAGTTTTGAGGTACGA  
 AAAGACCACCATGATCTGGCTAAGAAGAATTACAAACTGGCGTGATTCATGGAATTAAGTCATGTAG  
 AAGAGTGGCCAGACAATGTGGATTTTATCATAAGGACATTTTCAGGAGCAACCGAAGACATAAAATCTTT  
 AACATTTGACGCAGTAGCTTTGGATATGTTAAATCCTCATGTTACTTTGCCTGTTTTTACCACATCTT  
 AAGCATGGTGGTATGTGCTGTATGTAGTAAACATCACACAGGTTATTGAACTTTTAGATGGAATTC  
 GCACCTGTGAACCTTCTTTCATGTGAAAAGATAAGCGAGGTCATTGTCAGAGATTGGTTGGTTTGCCT  
 TGCAAAACAGAAAATGGAATTTTAGCTCAAAAAGTAGAATCTAAAATCAACACAGATGTACAACACTAGAT  
 TCTCAAGAGAAAATTGGAGTTAAAGGTGAGCTGTTTCAAGAGGATGACCATGAAGAATCGCATTCTGATT  
 TTCCATATGGATCATTTCCCTATGTTGCTAGACCAGTACACTGGCAACCTGGTCATACAGCTTTTCTTGT  
 CAAGTTGAGGAAGGTCAAACCACAACTTAAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC201499 protein sequence  
 Red=Cloning site Green=Tags(s)

MLMAWCRGPVLLCLRQGLGTNSFLHGLGQEPFEGARSLCCRSSPRDLRDEREHEAAQRKAPGAESCPSL  
 PLSISDIGTGCLSSLENLRLPTLREESSPRELEDSSGDQGRCPHQGSEDPSMLSQAQSAIEVEERHVS  
 PSCSTSRERPFQAGELILAETGEGETKFKKLFRLNNFGLLNSNWGAVPFQKIVGKFPQGILRSSFGKQYM  
 LRRPALEDYVVLMKRGTAITFPKDINMILSMMDINPGDVTLEAGSGSGMSLFLSKAVGSQGRVVSFEVR  
 KDHHDLAKKNYKHWKRSWKL SHVEEWPDNVDFIHKDISGATEDIKSLTFDAVALDMLNPHVTLPVFYPHL  
 KHGGVCAVYVVNITQVIELLDGIRTCELALSCEKISEVIVRDWLVCLAKQKNGILAQKVESKINTDVQLD  
 SQEKIGVKGELFQEDDHEESHDFPYGSPYVARPVHWQPGHTAFLVKLRKVKPQLN

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

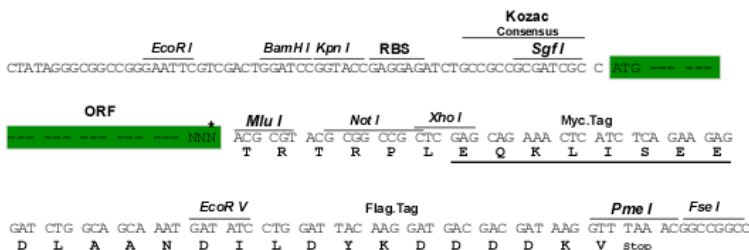
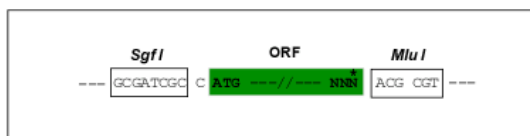
[https://cdn.origene.com/chromatograms/mk6299\\_a05.zip](https://cdn.origene.com/chromatograms/mk6299_a05.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_017910

**ORF Size:** 1431 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\\_017910.2](#), [NP\\_060380.2](#)
**RefSeq Size:** 1856 bp

**RefSeq ORF:** 1434 bp

**Locus ID:** 55006

**UniProt ID:** [Q9BVS5](#)

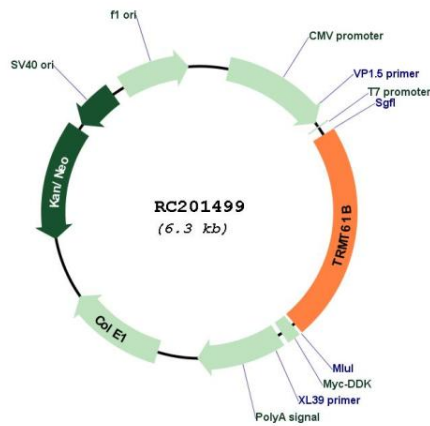
**Cytogenetics:** 2p23.2

**Protein Families:** Druggable Genome

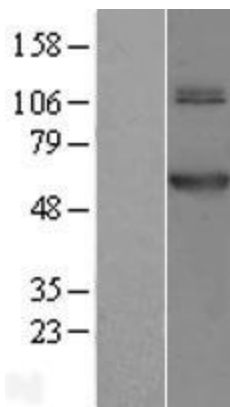
**MW:** 53 kDa

**Gene Summary:** Methyltransferase that catalyzes the formation of N(1)-methyladenine at position 58 (m1A58) in various tRNAs in mitochondrion, including tRNA(Leu) (deciphering codons UUA or UUG), tRNA(Lys) and tRNA(Ser) (deciphering codons UCA, UCU, UCG or UCC) (PubMed:23097428). Catalyzes the formation of 1-methyladenosine at position 947 of mitochondrial 16S ribosomal RNA and this modification is most likely important for mitoribosomal structure and function (PubMed:27631568). In addition to tRNA N(1)-methyltransferase activity, also acts as a mRNA N(1)-methyltransferase by mediating methylation of adenosine residues at the N(1) position of MT-ND5 mRNA, leading to interfere with mitochondrial translation (PubMed:29107537). [UniProtKB/Swiss-Prot Function]

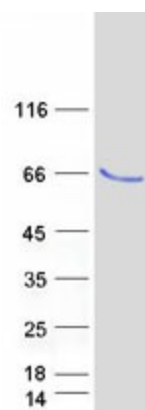
**Product images:**



Circular map for RC201499



Western blot validation of overexpression lysate (Cat# [LY413456]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201499 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TRMT61B protein (Cat# [TP301499]). The protein was produced from HEK293T cells transfected with TRMT61B cDNA clone (Cat# RC201499) using MegaTran 2.0 (Cat# [TT210002]).