

Product datasheet for RN213215

Trmt10c (NM_001008337) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Trmt10c (NM_001008337) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Trmt10c
Synonyms:	Rg9mtd1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>RN213215 representing NM_001008337 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAATGTGACTGTTTCGTTTCTTAAGACCTTTTGCCAGATATCTGGTGCCATATACCTTCCATAGGACAA
GAAGTAATTCATATCAAGAGTTCTGCAGAGATATGTGTCTTCCAAAGTACCTTCTTTGCCCTGTCATAA
TAAGGACAGTACATCCCCTCTGAGCAGCTAGAATTGGATGGGTGAAAACACTACAATGAAATCTAGCATT
CAAGAAAATGGTGTTCAGTGGTCTCCGACAAAGATGAAGACTCTCTGGTGCAACCAGAGAGCTAATTG
AGATGTGGAGATTGCTTGGCAAAGAAGTACCAGAACACATCACTGAAGAGGAGCTCAAAACCTTATGGA
ATGTGCTTCTAAGTCAGCCAAAAGAAATCTTAAGGTATTTGTATGGTAAGGAAATGATGAAAAAGCT
AAGCAAATGAAGAAGGAAATGAAAGCAGCAGCCAGGGAAGAAGCAAAAAGGGCCAGGTCACTAGAGCCCA
GCACGGGAGAGGAACAACGGGACTTCATGTTTCTCCGACTCTGGGACCGACAGACCAACATCGCACTGGG
ATGGAAGGGTGTCCAGGCCATGCAGTTTGGACAGCCTTTGGTTTTTGACATGGCTTATGATAATTACATG
AAACCAAGTGAAGTGCAGAAATACAGTTTCTCACTTTTAGAAAGTGAAGGCTGGAACAGAAGGAATGTTG
ATCCTTTCCACATTTATTTCTGCAATCTTGAGGTAGATGGTGTACCATAGAGAGCTAGTTAAACGGTA
TGGAGAAAAATGGGACAAGTTGCTCTTAACAGCCACAGAAAAGTCTCCTGTCGATTTATTTCCAAAGGAC
AGTATTATATTTAACTGCAGATTCTCCAATGTTATGACTACCTTCAAGCATGATAAAAATTTATATAA
TTGGATCATTGTTGATAAAAAATACACAGACAGGAACATCCTTAGCCAAGGCTAAACGGCAAAATCTAGC
AACAGAATGCCTTCCACTAGATAAATATTTACAATGGGATGTTGGTAACAAAAACCTCACCTTAGATCAA
ATGATTGAAATTCGCTCTGCTGAAACACTGGTAACTGGGAAGAGGCTCTCAAGTTTGTCCAGGA
GAAAGCACACTGGCTATTTAGAGGTTCTGAGCATTTCGAGGCAGCTTTTAGGAACTGAAGAAGACAAA
GACTTTAAATTCGTTTCGAAAGGGCTCCTTAAATGTACACATGTGAAAAGGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Restriction Sites:	Sgfl-Mlul
ACCN:	NM_001008337
Insert Size:	1245 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).
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:	<u>NM_001008337.1</u> , <u>NP_001008338.1</u>
RefSeq Size:	2651 bp
RefSeq ORF:	1245 bp
Locus ID:	304012
UniProt ID:	<u>Q5U2R4</u>
Cytogenetics:	11q12
Gene Summary:	<p>Mitochondrial tRNA N(1)-methyltransferase involved in mitochondrial tRNA maturation. Component of mitochondrial ribonuclease P, a complex composed of TRMT10C/MRPP1, HSD17B10/MRPP2 and MRPP3, which cleaves tRNA molecules in their 5'-ends. Together with HSD17B10/MRPP2, forms a subcomplex of the mitochondrial ribonuclease P, named MRPP1-MRPP2 subcomplex, which displays functions that are independent of the ribonuclease P activity. The MRPP1-MRPP2 subcomplex catalyzes the formation of N(1)-methylguanine and N(1)-methyladenine at position 9 (m1G9 and m1A9, respectively) in tRNAs; TRMT10C/MRPP1 acting as the catalytic N(1)-methyltransferase subunit. The MRPP1-MRPP2 subcomplex also acts as a tRNA maturation platform: following 5'-end cleavage by the mitochondrial ribonuclease P complex, the MRPP1-MRPP2 subcomplex enhances the efficiency of 3'-processing catalyzed by ELAC2, retains the tRNA product after ELAC2 processing and presents the nascent tRNA to the mitochondrial CCA tRNA nucleotidyltransferase TRNT1 enzyme. In addition to tRNA N(1)-methyltransferase activity, TRMT10C/MRPP1 also acts as a mRNA N(1)-methyltransferase by mediating methylation of adenosine residues at the N(1) position of MT-ND5 mRNA.[UniProtKB/Swiss-Prot Function]</p>