

Product datasheet for **RC204113**

RNMTL1 (MRM3) (NM_018146) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RNMTL1 (MRM3) (NM_018146) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RNMTL1
Synonyms:	RMTL1; RNMTL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204113 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCGCTGGTGAGACCCCTCGAGGTTTGTCTGCGACCGTTGCTGCAGGTGGTCCAGGCTTGGGACC
TTGACGCGAGGCGCTGGGTCCGGGCGCTGCGGCGGAGCCAGTAAAAGTGGTGTTCCTCCGGAGAGGT
GGTGAACAGAAGCGGCTCCTGGGAAGCAGCCCCGAAGGCACCATCTGAGGCCAGTCCCAGGAGCAA
CGAGAGAAACAACCGCTCGAGGAGTCCGCATCCCGCGCTCCAGCACCTGGGAAGAGTCTGGGCTTCGCT
ACGATAAAGCTTATCCCGGGACAGGAGGCTGAGCAGTGAATGACAATAGTAAAGTCCAGGCCATTTCCG
GGAAAAACAAGGGAAGATCCTGCTGGAAGTTCGACAGGCTCATTTTCAGACGCTCTCAAGGCTGGAGCTGTG
CCAAAAATGTTCTTTAGCCGTCTAGAATACCTAAAGGAGTTGCCAGTCGATAAGCTGAAAGGTGTCA
GCCTCATTAAAGGTGAAATTTGAGGATATCAAGGATTGGTCCGACCTCGTAACGCCACAAGGAATAATGGG
GATTTTGGCAAGCCTGACCATGTTAAGATGACATATCCAAGACTCAGCTTCAGCATTCACTGCCTTTA
TTATTGATTTGTGACAATCTCCGTGACCCTGGGAACCTGGGGACAATTCTGAGATCTGCAGCTGGGGCAG
GCTGCAGCAAAGTGTACTACCAAAGGCTGTGTGGATGCCTGGGAGCCAAAGTGTCCGGGCGGGTAT
GGGCGCACATTTCCGGATGCCATTATCAATAATCTGGAATGGGAAACCGTCCCAATTACCTGCCCCCT
GACACTCGGGTCTATGTGGCTGACAACCTGTGGCCTTTATGCCAGGCTGAGATGTCTAATAAAGTAGTG
ACCATGGCTGGGTGTGTGATCAACGAGTGAAGTTTCACAAGTATGAGGAAGAGGAAGATGTAGAAAC
CGGAGCCAGTCAAGATTGGCTGCCTCATGTTGAGGTTGAGGTTACGACTCGGACTGGACAGAGGGCCCG
GCAGCTGTGGTATTGGCGGGGAGACCTACGGCGTGAGCCTGGAGTCCCTGCAGCTGGCCGAGAGCACTG
GTGGCAAGAGGCTGCTGATCCCCGTTGTGCCTGGTGTGGACAGCCTCAACTCGGCCATGGCGGCAAGCAT
CCTGCTTTTGAAGGGAAAAGACAGCTGCGGGGGAGGGCGGAGGACTTGAGCAGGGACAGGAGTTACCAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204113 protein sequence
Red=Cloning site Green=Tags(s)

MAALVPRSRFVVRPLLQVVQAWDL DARRWVRALRRSPVKVVFPSGEVVEQKRAPGKQPRKAPSEASAQEQ
 REKQPLEESASRAPSTWEESGLRYDKAYPGDRRLSSVMTIVKSRPFREKQGKILLEGRRLISDALKAGAV
 PKMFFFSRLEYLKELPVDKLGVS LIKVKFEDIKDWSDLVTPQGIMGIFAKPDHVKMTYPTQLQHSLPL
 LLICDNL RDPGNLGTILRSAAGAGCSKVL LTKGCVD AWEPKVLRAGMGAHFRMPIINNLEWETVPNYLPP
 DTRVYVADNCGLYAQAEMSNKASDHGWCDQRVMKFHKYEEEDVETGASQDWLPHVEVQSYSDSWTEAP
 AAVVIGGETYGVSL ESLQLAESTGGKRLLIPVVPGVDSLNSAMAASILLFEGKRQLRGRAEDLSRDRSYH

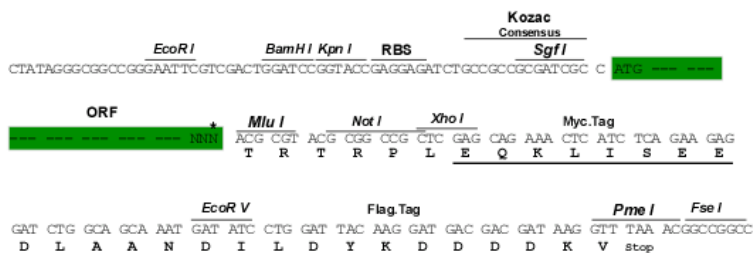
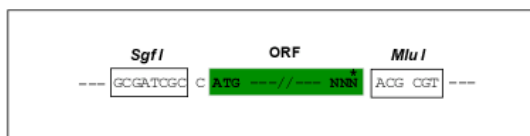
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6431_c12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_018146

ORF Size: 1260 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_018146.4](#)

RefSeq Size: 1815 bp

RefSeq ORF: 1263 bp

Locus ID: 55178

UniProt ID: [Q9HC36](#)

Cytogenetics: 17p13.3

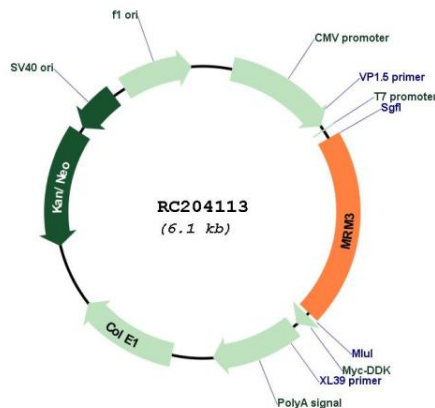
Domains: SpoU_methylase

Protein Families: Stem cell - Pluripotency

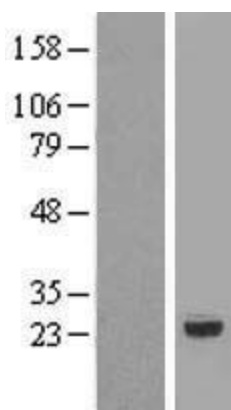
MW: 47 kDa

Gene Summary: Efficient translation of mitochondrial-derived transcripts requires proper assembly of the large subunit of the mitochondrial ribosome. Central to the biogenesis of this large subunit is the A-loop of mitochondrial 16S rRNA, which is modified by three rRNA methyltransferases located near mtDNA nucleoids. The protein encoded by this gene methylates G(1370) of 16S rRNA, and this modification is necessary for proper ribosomal large subunit assembly. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2015]

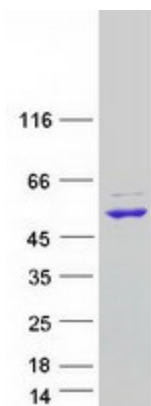
Product images:



Circular map for RC204113



Western blot validation of overexpression lysate (Cat# [LY413276]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204113 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MRM3 protein (Cat# [TP304113]). The protein was produced from HEK293T cells transfected with MRM3 cDNA clone (Cat# RC204113) using MegaTran 2.0 (Cat# [TT210002]).