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Product datasheet for RC219032

TRMT1 (TRMU) (NM_018006) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TRMT1 (TRMU) (NM_018006) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TRMT1
Synonyms:	LCAL3; MTO2; MTU1; TRMT; TRMT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC219032 representing NM_018006
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAGGCCTTGCGGCACGTCGTGTGCGCCCTGTCCGGCGGCGTGGACAGCGCCGTGGCCGCGCTGCTGC
TGAGGCGGAGAGGTTACCAGGTGACAGGGGTGTTTATGAAGAACTGGGACTCACTGGATGAACATGGGGT
CTGTACTGCCGACAAAGACTGTGAAGATGCTTACAGAGTTTGCCAGATCTTAGACATCCCTTTCCATCAA
GTGTCCTACGTAAAGGAGTATTGGAATGATGTGTTCAGTGACTTTTTGAATGAGTATGAAAAAGGAAGGA
CTCCCAATCCTGACATAGTTTGCAACAAGCACATCAAATTTAGTTGCTTTTTTCATTATGCTGTGGATAA
TCTTGGGGCAGATGCCATTGCCACAGGTCACTATGCAAGAACTTCCCTGGAAGATGAAGAAGTCTTTGAG
CAGAAGCACGTTAAGAAGCCCGAAGGGCTTTTCAGAAATCGGTTTGAAGTTAGAAATGCGGTAAAACTCC
TCCAGGCAGCTGACAGCTTTAAAGACCAGACCTTCTTTCTCAGCCAGGTTTCCCAGGATGCCCTGAGGAG
AACCATCTTCCCTCTGGGGGGATTAACGAAAGAGTTTGTAAAGAAAATCGCTGCTGAGAATAGACTTCAT
CATGTGCTTCAGAAGAAAGAGAGCATGGGCATGTGTTTCATCGGGAAGAGGAATTTTGAACATTTCCTTC
TTCAGTATCTGCAGCCTCGACCTGGTCACTTTATTTCCATAGAAGACAATAAGGTTCTGGGAACACATAA
AGGTTGGTTCCTGTATACCTTGGGCCAGAGAGCAAACATAGGTGGCCTGAGAGAGCCCTGGTACGTGGTG
GAGAAGGACAGCGTCAAGGGTGACGTGTTTGTGGCCCCCCGGACAGACCACCCAGCCCTGTACAGGGACC
TGCTGAGGACCAGCCGCGTGCACTGGATTGCGGAGGAGCCTCCCGCAGCACTGGTCCGGGACAAGATGAT
GGAGTGCCACTTCCGATTCCGCCACCAGATGGCACTAGTGCCCTGTGTGCTGACCCTCAATCAAGATGGC
ACCGTGTGGGTGACAGCTGTGCAGGCTGTGCGTGCCCTTGCCACAGGACAGTTTGCTGTGTTCTACAAGG
GGGACGAGTGCCTGGGCAGCGGGAAGATCCTGCGGCTGGGGCCGTCTGCCTACACGCTCCAGAAGGGCCA
GCGCAGAGCTGGGATGGCCACTGAGAGCCCCAGTGACAGCCCAGAAGATGGTCCAGGCCTGAGTCCCTTG
CTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC219032 representing NM_018006
Red=Cloning site Green=Tags(s)

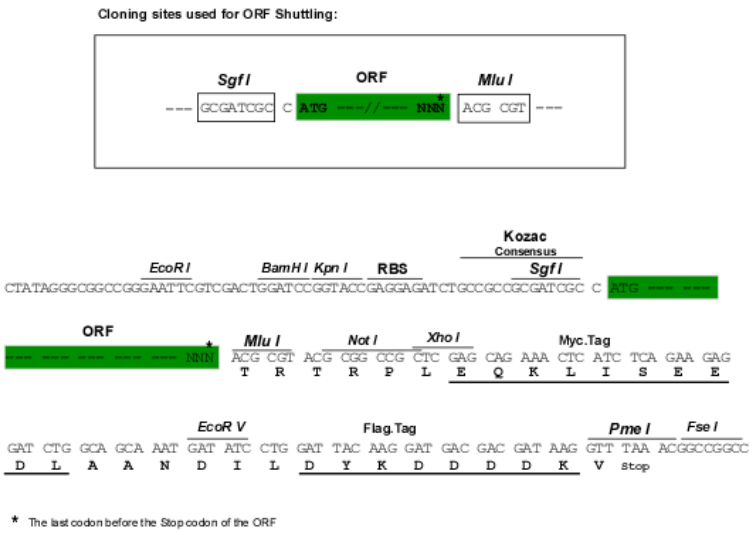
MQALRHVVCALSGGVDSAVAALLLRRRGYQVTGVFMKNWDSLDEHGVCTADKDCEDAYRVCQILDIPFHQ
VSYVKEYWNDVFSDFLNEYEKGRTPNPDIVCNKHIKFSCFFHYAVDNLGADAIATGHYARTSLEDEEVFE
QKHVKKPEGLFRNRFEVRNAVKLLQAADSFKDQTFFLSQVSQDALRRTIFPLGGLTKEFVKKIAAENRLH
HVLQKKESMGMCFIGKRNFEHFLLQYLQPRPGHFISIEDNKVLGTHKGWFLYTLGQRANIGGLREPWYVV
EKDSVKGDVFVAPRTDHPALYRDLLRTSRVHWIAEEPPAALVRDKMMECHFRFRHQMALVPCVLTLNQDG
TVWVTAVQAVRALATGQFAVFYKGDECLGSGKILRLGPSAYTLQKGQRRAGMATESPSDSPEDGPGLSPL
L

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6157_g06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_018006

ORF Size: 1263 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_018006.5

RefSeq Size: 1970 bp

RefSeq ORF: 1266 bp

Locus ID: 55687

UniProt ID: O75648

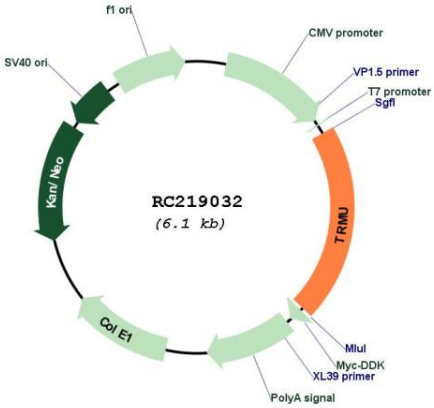
Cytogenetics: 22q13.31

Domains: tRNA_Me_trans

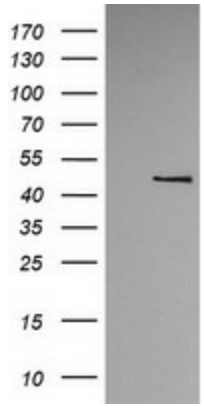
MW: 47.6 kDa

Gene Summary: This nuclear gene encodes a mitochondrial tRNA-modifying enzyme. The encoded protein catalyzes the 2-thiolation of uridine on the wobble positions of tRNA(Lys), tRNA(Glu), and tRNA(Gln), resulting in the formation of 5-taurinomethyl-2-thiouridine moieties. Mutations in this gene may cause transient infantile liver failure. Polymorphisms in this gene may also influence the severity of deafness caused by mitochondrial 12S ribosomal RNA mutations. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2013]

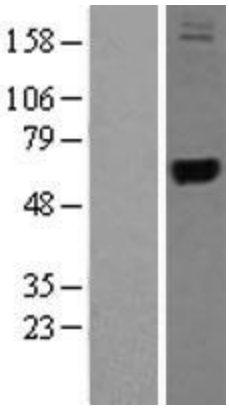
Product images:



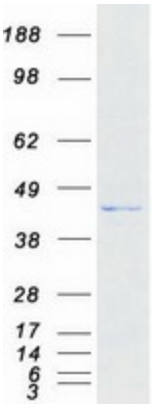
Circular map for RC219032



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TRMU (Cat# RC219032, 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-TRMU(Cat# [TA505699]). Positive lysates [LY402642] (100ug) and [LC402642] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402642]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219032 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TRMU protein (Cat# [TP319032]). The protein was produced from HEK293T cells transfected with TRMU cDNA clone (Cat# RC219032) using MegaTran 2.0 (Cat# [TT210002]).