

Product datasheet for RC204221

MTRF1L (NM_019041) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MTRF1L (NM_019041) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MTRF1L
Synonyms:	HMRF1L; MRF1L; mtRF1a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204221 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCGGTCCCGGTTCTGTGGGGCGCTGCCGGTGGCTCTGGCCCCGCCGGGCCGTTGGCCAGCCCGCC
GGCCCCGAGCTCCGGTAGCCCGCCGCTGGAGGAGCTGTTGCCCCGGGGCGGGCCCTTGGCGACCTTCT
CGAGCGCCAGGCGGGTCTGAAGCCATTTGAAGGTCAGGAGGCCGAGTTGCTGGCGGTGATCAAAGT
CTGAACGAGAAGGAGCAGGAGCTGCGGGAGACTGAGCACTTGTGCACGATGAGAATGAAGATTTAAGGA
AACTTGCAGAGAATGAAATCACTTTGTGTCAAAAAGAAATAACTCAGCTGAAGCATCAGATTATCTTACT
TTTGGTTCCCTCAGAAGAACAGATGAAAATGATTTGATCCTGGAAGTAAGTGCAGGAGTTGGAGGTCAG
GAGGCAATGTTGTTTACATCAGAGATATTTGATATGTATCAGCAATATGCTGCATTTAAAAGATGGCATT
TTGAAACCTGGAATATTTTCCAAGTGAAGTAGGTGGCCTTAGACATGCATCTGCCAGCATTGGGGGTTT
AGAAGCCTATAGGCACATGAAATTTGAAGGAGGTGTTACAGAGTACAAAGAGTGCCAAAGACAGAAAAAG
CAAGGCCGCGTCCATACTAGCACCATGACTGTAGCAATATTACCCAGCCTACTGAGATTAATCTGGTGA
TTAATCCGAAAGATTTGAGAATTGACACTAAGCGAGCCAGTGGAGCTGGGGGCAGCATGTAATAACAC
GGACAGTGCTGTCCGGATAGTTTCATCTTCCAACAGGTGTTGTTTCTGAATGTCAACAAGAGAGATCTCAG
CTGAAAAATAAAGAGCTGGCTATGACAAAGTTACGTGCAAAAGTACAGCATGCATCTAGAAGAAGAAA
TAAATAAAGACAGAATGCTAGAAAAATTCAGATTGGAAGTAAAGGAAGATCAGAGAAAAATAAGAACATA
TAATTTTCCACAGAACCAGGTCACAGATCACAGAATAAACAAGACGCTGCATGATCTTGAAACTTTTATG
CAAGGAGATTACTACTGGATGAACTTGTACAGTCATTGAAGGAATACGCCGATTATGAATCTTTAGTAG
AAATTATTTCCAAAAAGTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204221 protein sequence
Red=Cloning site Green=Tags(s)

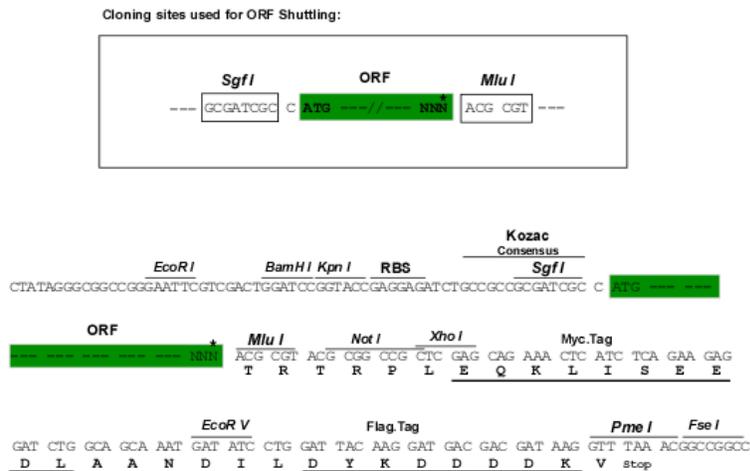
MRSRVLWGAARWLWPRRAVGPARRPLSSGSPLEELFARGGPLRTFLERQAGSEAHLKVRPELLAVIKL
 LNEKEQELRETEHLLHDENEDLRKLAENEITLCQKEITQLKHQIILLVPSEETDENDLILEVTAGVGGQ
 EAMLFITSEIFDMYQYAAFKRWHFETLEYFPSELGGLRHASASIGGSEAYRHMKFEGGVHRVQRPKTEK
 QGRVHTSTMTVAIILPQPTVINLVPKDLRIDTKRASGAGGQHVNTTDSAVRIVHLPTGVVSECQERSQ
 LKNKELAMTKLRAKLYSMHLEEEINKRQARKIQIGSKGRSEKIRTYNFPQNRVTDHRINKTLHDLETFM
 QGDYLLDELVQSLKEYADYESLVEIISQKV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6174_e04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_019041

ORF Size: 1140 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_019041.4](#)

RefSeq Size: 3815 bp

RefSeq ORF: 1143 bp

Locus ID: 54516

UniProt ID: [Q9UGC7](#)

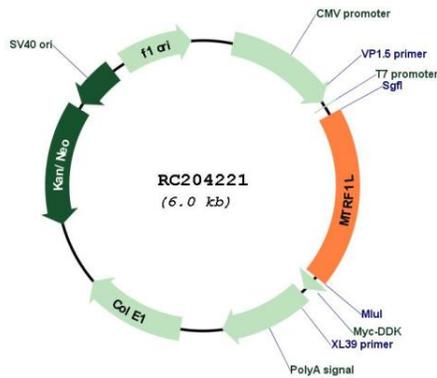
Cytogenetics: 6q25.2

Domains: RF-1, PCRF

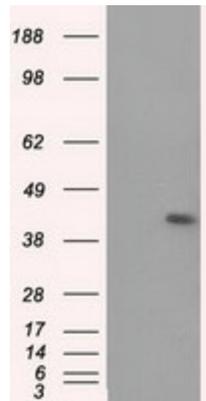
MW: 43.5 kDa

Gene Summary: The protein encoded by this gene plays a role in mitochondrial translation termination, and is thought to be a release factor that is involved in the dissociation of the complete protein from the final tRNA, the ribosome, and the cognate mRNA. This protein acts upon UAA and UAG stop codons, but has no in vitro activity against UGA, which encodes tryptophan in human mitochondrion, or, the mitochondrial non-cognate stop codons, AGA and AGG. This protein shares sequence similarity to bacterial release factors. Pseudogenes of this gene are found on chromosomes 4, 8, and 11. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2014]

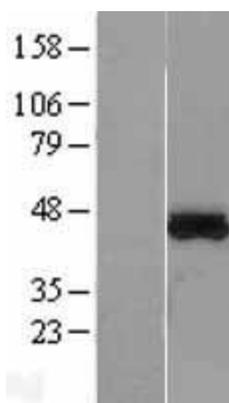
Product images:



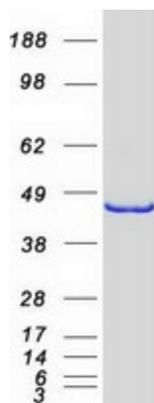
Circular map for RC204221



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MTRF1L (Cat# RC204221, 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-MTRF1L(Cat# [TA501067]). Positive lysates [LY402734] (100ug) and [LC402734] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402734]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204221 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MTRF1L protein (Cat# [TP304221]). The protein was produced from HEK293T cells transfected with MTRF1L cDNA clone (Cat# RC204221) using MegaTran 2.0 (Cat# [TT210002]).