

Product datasheet for **RC207912**

MTRF1 (NM_004294) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MTRF1 (NM_004294) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MTRF1
Synonyms:	MRF1; MTTRF1; RF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC207912 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAATCGTCACCTGTGTGTTTGGCTTTTGTAGACATCCATCTCTTAATGGTTACCTCCAGTGCACATCC
 AGCTCCATTCTCATCAATTTAGACAGATACATCTTGATACAAGGCTGCAAGTTTTAGACAAAACAGGAA
 TTGCATTTCTCATCTGTTAAGTAAGAATTGGTCCAGGAGATATTGCCATCAAGACACCAAGATGCTCTGG
 AAGCATAAAGCACTACAGAAATATATGGAGAACCTGAGTAAGGAGTACCAAACTTGTAGCAATGTCTGC
 AGCATATCCCTGTGAATGAAGAAAACCGAAGTCTTGAACAGAAAGGCATGCTGAGTTGGCACCTTTGC
 AGCCATTTACCAAGAAATTCAGGAGACTGAACAAGCAATTGAAGAATTAGAATCAATGTGTAAAAGCCTA
 AATAACAAGATGAAAAGCAGTTACAAGAACTGCACTGGAAGAAAGGCAAAACCATTGATCAAAAAATCA
 ACATGTTGTACAATGAGCTTTTCCAGAGCCTTGTGCCAAAGGAGAAATATGACAAAAATGATGTTATTTT
 AGAGGTGACAGCTGGAAGGACTACTGGAGGTGACATCTGCCAACAAATTTACCCGAGAAATATTTGACATG
 TACCAGAATTATTCGTGCTATAAACACTGGCAATTTGAAGTTCTGAATTATACACCAGCAGATTATGGTG
 GACTACATCATGCAGCCGCCGAATTTCCGGTGACGGTGTCTATAAGCATTGGAAGTATGAGGGTGGGAT
 TCACCGAGTTCAGCGCATCCCGAGGTGGGCTGTCTCAAGGATGCAGCGCATTACACAGGAACGATG
 TCGGTTATTGCTTCTCAGCCAGATGAGGTGGATGTGAAATTTGGACCCCAAGGATTTGCGAATAGATA
 CATTTCGAGCCAAAGGAGCAGGAGGGCAGCATGTTAATAAAACTGATAGTGCCGTGAGACTTGTCCACAT
 CCCACAGGGCTAGTAGTAGAATGCCAACAGAAAGATCAGATAAAAAATAAGAAATAGCCTTTTCGT
 GTGTTGAGAGCTAGACTCTACCAGCAGATTATTGAGAAAGACAAGCGTCAGCAACAAAGTCTAGAAAAC
 TGCAGGTGGGAACAAGAGCCAGTCAGAGCGAATTCGGACATATAATTTACCCAGGATGAGTCAAGTGA
 CCACAGGATAGCATATGAAGTTCTGTGATTTAAGGAATTTTATGTGGTGGGAAGGGCCTGGATCAGCTA
 ATTCAGAGACTGCTTCAATCAGCAGATGAAGAAGCCATTGCTGAAGTTTGGATGAACACCTTAAATCAG
 CAAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207912 protein sequence
 Red=Cloning site Green=Tags(s)

MNRHLCVWLFRRPSLNGYLQCHIQLHSHQFRQIHLDRQLQVFRQNRNCILHLLSKNWSRRYCHQDTKMLW
 KHKALQKYMENLSKEYQTLQCLQHIPVNEENRRSLNRRHAELAPLAAIYQEIQETEQAIEELESCKSL
 NKQDEKQLQELALEERQTIDQKINMLYNELFQSLVPKEKYDKNDVILEVTAGRTTGGDQCQFTREIFDM
 YQNYSCYKHWQFELLNYPADYGGLLHAAARISGDGVYKHLKYEGGIHRVQRIPEVGLSSRMQRIHTGTM
 SVIVLPQPDEVDKLDPKDLRIDTFRAKAGGQHVNKTD SAVRLVHIPTGLVVECCQERSQIKNKEIAFR
 VLRARLYQQIIEKDKRQQSARKLQVGTQASERIRTYNFTQDRVSDHRIAYEVRIKEFLCGGKGLDQL
 IQRLQSADEEAI AELLDEHLKSAK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6509_a02.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_004294

ORF Size: 1335 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_004294.4](#)

RefSeq Size: 2174 bp

RefSeq ORF: 1338 bp

Locus ID: 9617

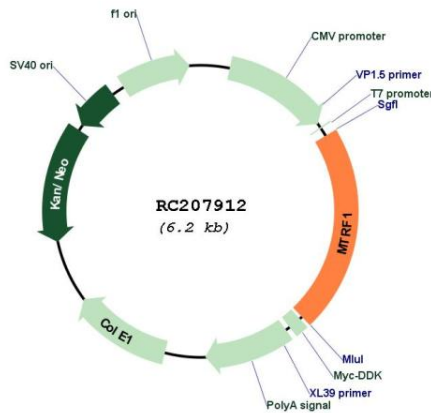
UniProt ID: [O75570](#)

Cytogenetics: 13q14.11

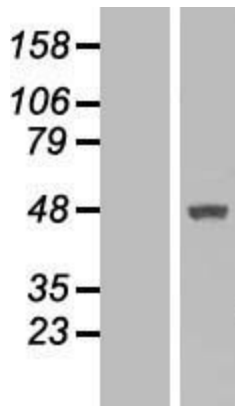
MW: 52.3 kDa

Gene Summary: The protein encoded by this gene was determined by in silico methods to be a mitochondrial protein with similarity to the peptide chain release factors (RFs) discovered in bacteria and yeast. The peptide chain release factors direct the termination of translation in response to the peptide chain termination codons. Initially thought to have a role in the termination of mitochondria protein synthesis, a recent publication found no mitochondrial translation release functionality. Multiple alternatively spliced transcript variants have been suggested by mRNA and EST data; however, their full-length natures are not clear. [provided by RefSeq, Jul 2008]

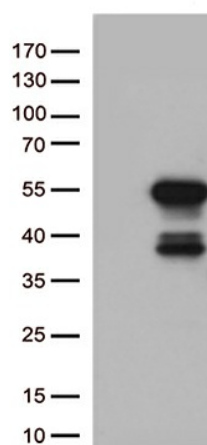
Product images:



Circular map for RC207912



Western blot validation of overexpression lysate (Cat# [LY418084]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207912 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MTRF1 (Cat# RC207912, 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-MTRF1 (Cat# [TA813119])(1:500).