

Product datasheet for **RG207912**

MTRF1 (NM_004294) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MTRF1 (NM_004294) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MTRF1
Synonyms:	MRF1; MTTRF1; RF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG207912 representing NM_004294
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAATCGTCACCTGTGTGTTTGGCTTTTGTAGACATCCATCTCTTAATGGTTACCTCCAGTGTACATCC
 AGCTCCATTCTCATCAATTTAGACAGATACATCTTGATACAAGGCTGCAAGTTTTAGACAAAACAGGAA
 TTGCATTTCTCATCTGTTAAGTAAGAATTGGTCCAGGAGATATTGCCATCAAGACACCAAGATGCTCTGG
 AAGCATAAAGCACTACAGAAATATATGGAGAACCTGAGTAAGGAGTACCAAACTTGTAGCAATGTCTGC
 AGCATATCCCTGTGAATGAAGAAAACCGAAGTCTTGAACAGAAGGCATGCTGAGTTGGCACCTTTGC
 AGCCATTTACCAAGAAATTCAGGAGACTGAACAAGCAATTGAAGAATTAGAATCAATGTGTAAAAGCCTA
 AATAACAAGATGAAAAGCAGTTACAAGAACTGCACTGGAAGAAAGGCAAAACCATTGATCAAAAAATCA
 ACATGTTGTACAATGAGCTTTTCCAGAGCCTTGTGCCAAAGGAGAAATATGACAAAAATGATGTTATTTT
 AGAGGTGACAGCTGGAAGGACTACTGGAGGTGACATCTGCCAACAAATTTACCCGAGAAATATTTGACATG
 TACCAGAATTATTCGTGCTATAAACACTGGCAATTTGAACTTCTGAATTATACACCAGCAGATTATGGTG
 GACTACATCATGCAGCCGCCGAATTTCCGGTGACGGTGTCTATAAGCATTGTAAGTATGAGGGTGGGAT
 TCACCGAGTTCAGCGCATCCCGAGGTGGGCTGTCTCAAGGATGCAGCGCATTACACAGGAACGATG
 TCGGTTATTGTCCTTCCAGCCAGATGAGGTGGATGTGAAATTTGGACCCCAAGGATTTGCGAATAGATA
 CATTTCGAGCCAAAGGAGCAGGAGGGCAGCATGTTAATAAACTGATAGTGCCGTCAGACTTGTCCACAT
 CCCACAGGGCTAGTAGTAGAATGCCAACAGAAAGATCACAGATAAAAAATAAGAAATAGCCTTTTCGT
 GTGTTGAGAGCTAGACTCTACCAGCAGATTATTGAGAAAGACAAGCGTCAGCAACAAAGTCTAGAAAAC
 TGCAGGTGGGAACAAGAGCCAGTCAGAGCGAATTCGGACATATAATTTACCCAGGATAGAGTCAGTGA
 CCACAGGATAGCATATGAAGTTCGTGATATTAAGGAATTTTATGTGGTGGGAAGGCCTGGATCAGCTA
 ATTCAGAGACTGCTTCAATCAGCAGATGAAGAAGCCATTGCTGAACTTTGGATGAACACCTTAAATCAG
 CAAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG207912 representing NM_004294
 Red=Cloning site Green=Tags(s)

MNRHLCVWLFRRPSLNGYLQCHIQLHSHQFRQIHLDRQLQVFRQNRNCILHLLSKNWSRRYCHQDTKMLW
 KHKALQKYMENLSKEYQTLQCLQHVPVNEENRRSLNRRHAELAPLAAIYQEIQETEQAIEELESCKSL
 NKQDEKQLQELALEERQIDQKINMLYNELFQSLVPKEKYDKNVILEVTAGRTTGGDQCQFTREIFDM
 YQNYSCYKHWQFELLNYPADYGLHHAARISGDGVYKHLKYEGGIHRVQRIPEVGLSSRMQRIHTGTM
 SVIVLPQPDEVDVKLDPKDLRIDTFRAKGAGGQHVNKTDHAVRLVHIPTGLVVECCQERSQIKNKEIAFR
 VLRARLYQQIIEKDKRQQSARKLQVGTQRAQSERIRTYNFTQDRVSDHRIAYEVVDIKEFLCGGKGLDQL
 IQRLLQSADEEAI AELLDEHLKSAK

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

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_004294.2](#), [NP_004285.2](#)

RefSeq Size: 2174 bp

RefSeq ORF: 1338 bp

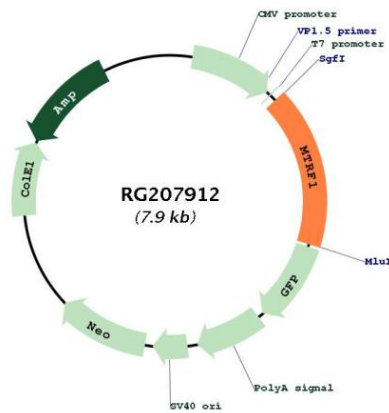
Locus ID: 9617

UniProt ID: [O75570](#)

Cytogenetics: 13q14.11

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 RG207912