

## Product datasheet for **RC203909**

### MRRF (NM\_138777) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MRRF (NM_138777) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MRRF
Synonyms:	MRFF; MTRRF; RRF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203909 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**C

ATGGCCTTGGGATTAAGTGCTCCGCATGGTCCACCCTACCTTTCGCAATTATCTTGCAGCCTCTATCA  
GACCCGTTTCAGAAGTTACTGAAGACAGTGCATGAAAGACAACATGGCCATAGGCAATACATGGCCTA  
TTCAGCTGTACCAGTCCGCCATTTTGTACCAAGAAAGCCAAAGCCAAAGGAAAGGACAGTCCCAAACC  
AGAGTGAATATTAATGCTGCCTTGGTTGAGGATATAATCAACTTGAAGAGGTGAATGAAGAAATGAAGT  
CTGTGATAGAAGCTCTCAAGGATAATTTCAATAAGACTCTCAATATAAGGACCTCACCAGGATCCCTTGA  
CAAGATTGCTGTGGTAAGTCTGACGGGAAGCTTGCTTTAAACCAGATTAGCCAGATCTCCATGAAGTCG  
CCACAGCTGATTTTGGTGAATATGGCCAGCTTCCAGAGTGTACAGCTGCAGCTATCAAGGCTATAAGAG  
AAAGTGAATGAATCTGAACCCAGAAGTGAAGGGACGCTAATTCGGGTACCCATTCCCCAAGTAACCGAG  
AGAGCACAGAGAAATGCTGGTGAAGTGGCCAAACAGAACACCAACAAGGCCAAAGACTCTTTACGGAAAG  
GTTTCGCACCAACTCAATGAACAAGCTGAAGAAATCCAAGGATACAGTCTCAGAGGACACCATTAGGCTAA  
TAGAGAAACAGATCAGCCAAATGGCCGATGACACAGTGGCAGAAGTGGACAGGCATCTGGCAGTGAAGAC  
CAAAGAACTCCTTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC203909 protein sequence  
 Red=Cloning site Green=Tags(s)

MALGLKCFRMVHPTFRNYLAASIRPVSEVTLKTVHERQHGHRQYMAYSAVPVRHFATKKAKAKGKGQSQT  
 RVNINAALVEDIINLEEVNEEMKSVIEALKDNFNKTLNIRTSPGSLDKIAVVTADGKLALNQISQISMKS  
 PQLILVNMAFPECTAAAIAKAIRESGMNLNPEVEGTLIRVPIPQVTRHREMLVKLAKQNTNKAKDSLRLK  
 VRTNSMNKLLKSKDVTSEDTIRLIEKQISQMADDTVAELDRHLAVKTKELLG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6304\\_d12.zip](https://cdn.origene.com/chromatograms/mk6304_d12.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\_138777

**ORF Size:** 786 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\\_138777.5](#)

**RefSeq Size:** 2036 bp

**RefSeq ORF:** 789 bp

**Locus ID:** 92399

**UniProt ID:** [Q96E11](#)

**Cytogenetics:** 9q33.2

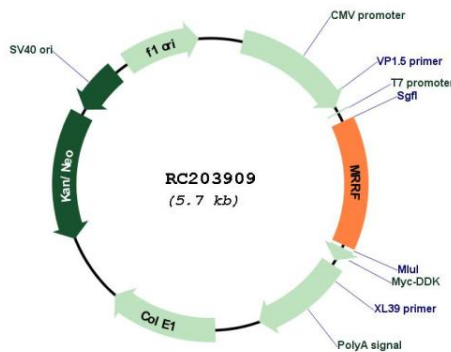
**Domains:** RRF

**Protein Families:** Transmembrane

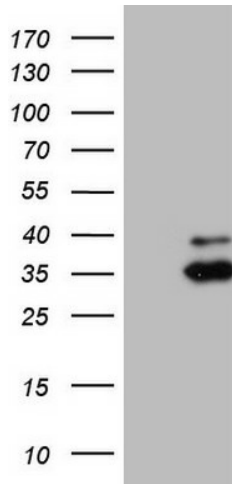
**MW:** 29.3 kDa

**Gene Summary:** This gene encodes a ribosome recycling factor, which is a component of the mitochondrial translational machinery. The encoded protein, along with mitochondrial elongation factor 2, functions in ribosomal recycling at the termination of mitochondrial translation by mediating the disassembly of ribosomes from messenger RNA. A pseudogene of this gene has been identified on chromosome X. [provided by RefSeq, Oct 2016]

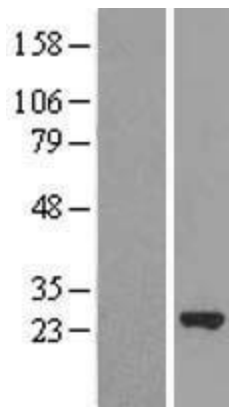
### Product images:



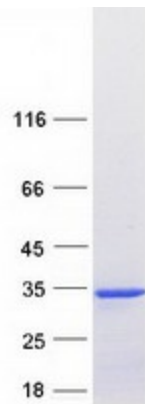
Circular map for RC203909



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MRRF (Cat# RC203909, 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-MRRF (Cat# [TA805997]). Positive lysates [LY408516] (100ug) and [LC408516] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY408516]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203909 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MRRF protein (Cat# [TP303909]). The protein was produced from HEK293T cells transfected with MRRF cDNA clone (Cat# RC203909) using MegaTran 2.0 (Cat# [TT210002]).