

## Product datasheet for **RG233342**

### MTRFR (NM\_001194995) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MTRFR (NM\_001194995) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** MTRFR  
**Synonyms:** C12orf65; COXPD7; SPG55  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG233342 representing NM\_001194995  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAGCACCGTGGGTTTATTTTCATTTTCTACACCACTGACCCGAATATGCCCGGCCCATGGGGACTCC  
 GGCTTTGGGAGAAGCTGACGTTGTTATCCCCAGGAATAGCTGTCCTCCGGTCCAGATGGCAGGCAAGAA  
 GGACTACCCTGCACTGCTTTCCTTGGATGAGAATGAACCTGAAGAGCAGTTTGTGAAAGGACACGGTCCA  
 GGGGCCAGGCAACCAACAAAACCAGCAACTGCGTGGTGTGAAGCACATCCCCTCAGGCATCGTTGTAA  
 AGTGCCATCAGACAAGATCAGTTGATCAGAACAGAAAGCTAGCTCGGAAAATCCTACAAGAGAAAGTAGA  
 TGTTTTCTACAATGGTGAAAACAGTCCTGTTACAAAAGAAAACGAGAAGCGGCGAAGAAAAACAAGAA  
 AGGAAAAAAGAGCAAAGGAAACCTGGAAAAAAGAAGCTACTTAAAGAACTGTGGGAGTCAAGTAAAA  
 AGGTCCAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG233342 representing NM\_001194995  
 Red=Cloning site Green=Tags(s)

MSTVGLFHPTPLTRICPAPWGLRLWEKLTLLSPGIAVTPVQMAGKKDYPALLSLDENELEEQFVKGHGP  
 GGQATNKTSNCVVLKHIPSGIVVKCHQTRSVDQNRKLRKILQEKVDFVYNGENSPVHKEKREAAKKKQE  
 RKKRAKETLEKKLLKELWESSKKVH

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI

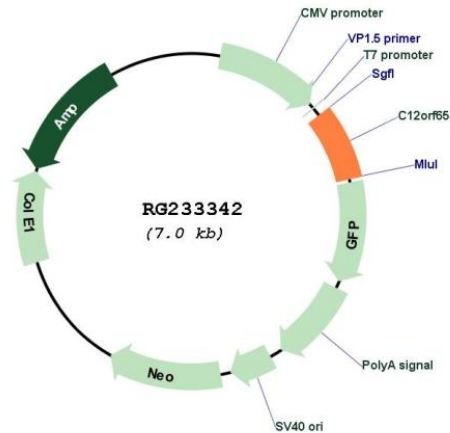


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Cloning Scheme:



Plasmid Map:



ACCN: NM\_001194995

ORF Size: 498 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001194995.1, NP_001181924.1</u>
<b>RefSeq Size:</b>	1901 bp
<b>RefSeq ORF:</b>	501 bp
<b>Locus ID:</b>	91574
<b>UniProt ID:</b>	<u>Q9H3J6</u>
<b>Cytogenetics:</b>	12q24.31
<b>Gene Summary:</b>	This nuclear gene encodes a mitochondrial matrix protein that appears to contribute to peptide chain termination in the mitochondrial translation machinery. Two different 1 bp deletions (resulting in the same premature stop codon) result in decreased mitochondrial translation, decreased levels of oxidative phosphorylation complexes and encephalomyopathy. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2010]