

## Product datasheet for **RG219175**

### MRPL42 (NM\_014050) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MRPL42 (NM\_014050) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** MRPL42  
**Synonyms:** HSPC204; L31MT; L42MT; MRP-L31; MRP-L42; MRP-S32; MRPL31; MRPS32; PTD007; RPML31; S32MT  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG219175 representing NM\_014050  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGTAGCTGCAGTAAAATGGGTGATGTCAAAGAGAACTATCTTGAAACATTTATTTCCAGTCCAAA  
ATGGAGCTTTATATTGTGTTTGCATAAACTACGTATTCTCCTCTACCAGATGACTATAATTGCAACGT  
AGAGCTTGCTCTGACTTCTGATGGCAGGACAATAGTATGCTACCACCCTTCTGTGGACATTCCATATGAA  
CACACAAAACCTATCCCTCGGCCAGATCCTGTGCATAAATGAAGAAACACATGATCAAGTGCTGAAAA  
CCAGATTGGAAGAAAAAGTTGAACACCTTGAGGAAGGACCTATGATAGAACAACCTAGCAAATGTTCTT  
TACTACTAAGCACCGTTGGTATCCTCATGGACGGTATCACAGATGTCGTAAGAATCTGAATCCTCCAAAA  
GACAGA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

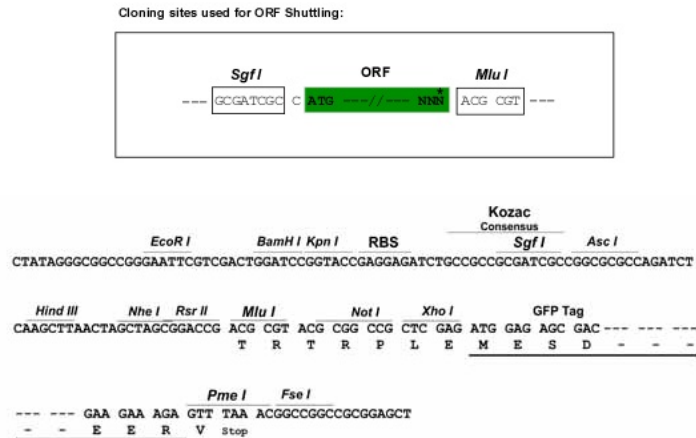
**Protein Sequence:** >RG219175 representing NM\_014050  
Red=Cloning site Green=Tags(s)  
MAVAAVKWMVMSKRTILKHLFPVQNGALYCVCHKSTYSPLPDDYNCNVELALTSRGRTIVCYHPSVDIPYE  
HTKPIRPDPVHNNNEETHDQVLKTRLEEKVEHLEEGPMIEQLSKMFFTTKRWYPHGRYHRCRKNLNPPK  
DR

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



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**Cloning Scheme:**


**ACCN:** NM\_014050

**ORF Size:** 426 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\\_014050.4](#)

**RefSeq Size:** 2070 bp

**RefSeq ORF:** 429 bp

**Locus ID:** 28977

**UniProt ID:** [Q9Y6G3](#)

**Cytogenetics:** 12q22

**Gene Summary:** Mammalian mitochondrial ribosomal proteins are encoded by nuclear genes and help in protein synthesis within the mitochondrion. Mitochondrial ribosomes (mitoribosomes) consist of a small 28S subunit and a large 39S subunit. They have an estimated 75% protein to rRNA composition compared to prokaryotic ribosomes, where this ratio is reversed. Another difference between mammalian mitoribosomes and prokaryotic ribosomes is that the latter contain a 5S rRNA. Among different species, the proteins comprising the mitoribosome differ greatly in sequence, and sometimes in biochemical properties, which prevents easy recognition by sequence homology. This gene encodes a protein identified as belonging to both the 28S and the 39S subunits. Alternative splicing results in multiple transcript variants. Pseudogenes corresponding to this gene are found on chromosomes 4q, 6p, 6q, 7p, and 15q. [provided by RefSeq, May 2011]

**Product images:**



Circular map for RG219175