

## Product datasheet for **RG219347**

### MRPL42 (NM\_172178) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MRPL42 (NM\_172178) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** MRPL42  
**Synonyms:** HSPC204; MRP-L31; MRPL31; MRPS32; PTD007; RPML31  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG219347 representing NM\_172178  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGGTGATGTCAAAGAGAAGTCTTGAACATTTATTTCCAGTCCAAAATTCGGGCGTACATGTGCAG  
 ATGGAGCTTTATATTGTGTTTGCATAAATCTACGTATTCTCCTCTACCAGATGACTATAATTGCAACGT  
 AGAGCTTGCTCTGACTTCTGATGGCAGGACAATAGTATGCTACCACCCTTCTGTGGACATCCATATGAA  
 CACACAAAACCTATCCCTCGGCCAGATCCTGTGCATAAATGAAGAAACACATGATCAAGTGCTGAAAA  
 CCAGATTGGAAGAAAAAGTTGAACACCTTGAGGAAGGACCTATGATAGAACAACCTAGCAAAATGTTCTT  
 TACTACTAAGCACCGTTGGTATCCTCATGGACGGTATCACAGATGTCGTAAGAATCTGAATCCTCCAAA  
 GACAGA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG219347 representing NM\_172178  
 Red=Cloning site Green=Tags(s)  
 MGDVKENYLETFISSPKFGRTCADGALYCVCHKSTYSPLPDDYNCNVELALTSRGRTIVCYHPSVDIPYE  
 HTKIPRPDPVHNEETHDQVLKTRLEEKVEHLEEGPMIEQLSKMFFTTKRWYPHGRYHRCRKNLNP  
 DR

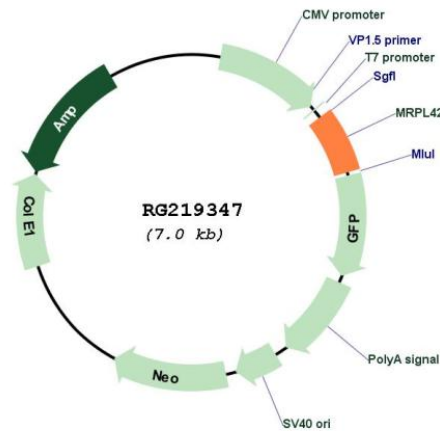
**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



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**Cloning Scheme:**

**Plasmid Map:**


ACCN: NM\_172178

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.

|                               |   |
|-------------------------------|---|
| <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_172178.2, NP_751918.1</u>   |
| <b>RefSeq Size:</b>           | 2093 bp   |
| <b>RefSeq ORF:</b>            | 428 bp  |
| <b>Locus ID:</b>              | 28977   |
| <b>Cytogenetics:</b>          | 12q22   |
| <b>Gene Summary:</b>          | 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] |