

Product datasheet for **RG218414**

MRPL47 (NM_020409) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MRPL47 (NM_020409) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MRPL47
Synonyms:	CGI-204; L47mt; MRP-L47; NCM1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG218414 representing NM_020409 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGCTGCGGCCGGTTTGGCCCTCTTTGTAGGAGAGTTTCATCCGCCCTGAAATCTTCCCGATCGTTAA
TAACTCCTCAGGTCCTGCCTGCACAGGGTTTTTCTTAGTTTGTTCCTAAGAGTACACCAATGTGAC
ATCCTTTCACCAATATAGATTACTTCATACCACATTGTCAAGGAAAGGACTAGAAGAATTTTTGTATGAC
CCAAAAAAGTGGGGCAAGAAAAAGTAAATCTGGAGCAGCATGGACCTGTCAGCAACTAAGGAACAAAA
GTAATGAAGATTTACACAACTTTGGTATGTCTTACTGAAAGAAAGAAACATGCTTCTAACCTAGAGCA
GGAGGCCAAGCGGCAGAGATTGCCAATGCCAAGTCCAGAGCGGTTAGATAAGGTAGTAGATTCCATGGAT
GCATTAGATAAAGTTGTCCAGGAAAGAGAAGATGCCCTAAGGCTTCTTCAGACTGGTCAAGAAAGAGCTA
GACCTGGTGCTTGGAGAAGAGACATCTTTGGAAGAATCATCTGGCACAAGTTCAAGCAGTGGGTTATACC
TTGGCACCTAAATAAAGATACAATAGGAAACGATTCTTTGCCTTGCCTTATGTGGACCATTTCTCAGA
CTGGAACGTGAGAAACGAGCCGCATCAAAGCACGGAAGGAAAATTTAGAGAGAAAGAAAGCAAAATTC
TTTTAAAAAGTTCCACATCTTGCTGAAGCCCAAAAGTCAAGTCTTGTCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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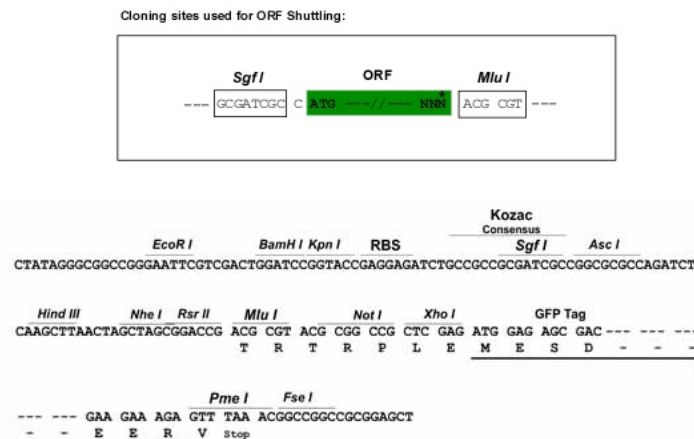
Protein Sequence: >RG218414 representing NM_020409
 Red=Cloning site Green=Tags(s)

MAAAGLALLCRRVSSALKSSRSLITPQVPACTGFFLSLLPKSTPNVTSFHQYRLLHTLSRKGLEEFFDD
 PKNWGQEKVKSGAAWTCQQLRNKSNEDLHKLWYVLLKERNMLLTLEQAKRQRLPMPSPERLDKVVDSMD
 ALDKVVQEREDALRLLTGQERARPGAWRRDIFGRIIWHKFQWVIPWHLNKRYNKRFFALPYVDHFLR
 LEREKRARIKARKENLERKKAKILLKKFPHLAEAQKSSLV

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_020409

ORF Size: 750 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_020409.3](#)

RefSeq Size: 1222 bp

RefSeq ORF: 753 bp

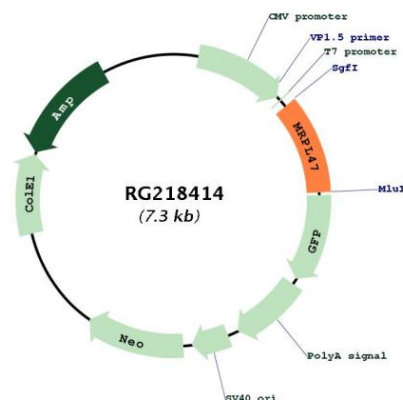
Locus ID: 57129

UniProt ID: [Q9HD33](#)

Cytogenetics: 3q26.33

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 39S subunit protein. This gene is immediately adjacent to the gene for BAF complex 53 kDa subunit protein a (BAF53a), in a tail-to-tail orientation. Two transcript variants encoding different protein isoforms have been identified. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG218414