

Product datasheet for **RC201482**

MRPL42 (NM_172177) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MRPL42 (NM_172177) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: MRPL42
Synonyms: HSPC204; L31MT; L42MT; MRP-L31; MRP-L42; MRP-S32; MRPL31; MRPS32; PTD007; RPML31; S32MT
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC201482 ORF sequence
Red=Cloning site **Blue**=ORF **Green**=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGTAGCTGCAGTAAAATGGGTGATGTCAAAGAGAACTATCTTGAAACATTTATTTCCAGTCCAAA
ATGGAGCTTTATATTGTGTTTGCATAAATCTACGTATTCTCCTCTACCAGATGACTATAATTGCAACGT
AGAGCTTGCTCTGACTTCTGATGGCAGGACAATAGTATGCTACCACCCTTCTGTGGACATTCCATATGAA
CACACAAAACCTATCCCTCGGCCAGATCCTGTGCATAAATGAAGAAACACATGATCAAGTGCTGAAAA
CCAGATTGGAAGAAAAAGTTGAACACCTTGAGGAAGGACCTATGATAGAACAACCTAGCAAATGTTCTT
TACTACTAAGCACCGTTGGTATCCTCATGGACGGTATCACAGATGTCGTAAGAATCTGAATCCTCCAAAA
GACAGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC201482 protein sequence
Red=Cloning site **Green**=Tags(s)
MAVAAVKWMVSKRTILKHLFPVQNGALYCVCHKSTYSPLPDDYNCNVELALTSRGRTIVCYHPSVDIPYE
HTKPIPRDPVHNEETHDQVLKTRLEEKVEHLEEGPMIEQLSKMFFTTKRWYPHGRYHRCRKNLNPPK
DR

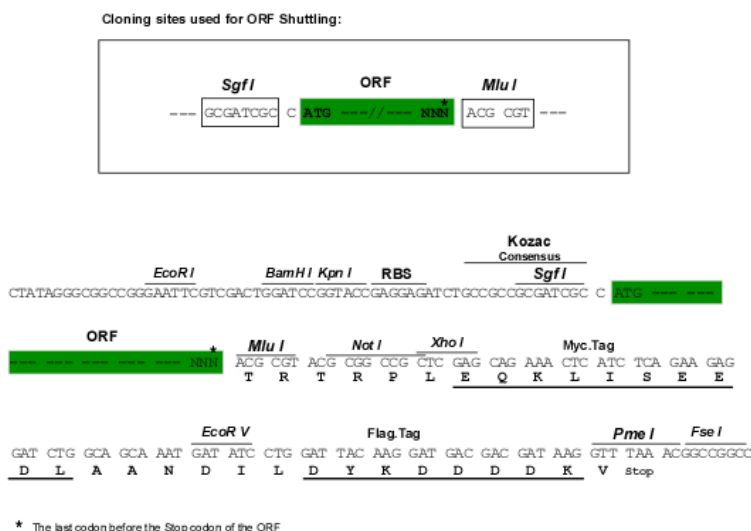
TRTRPLEQKLISEEDLAANDILDYKDDDDKV



Chromatograms: https://cdn.origene.com/chromatograms/mk6323_f04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_172177

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_172177.5](#)

RefSeq Size: 3142 bp

RefSeq ORF: 429 bp

Locus ID: 28977

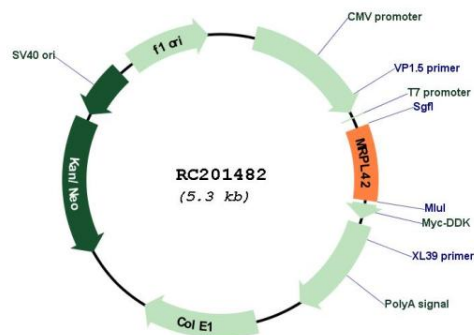
UniProt ID: [Q9Y6G3](#)

Cytogenetics: 12q22

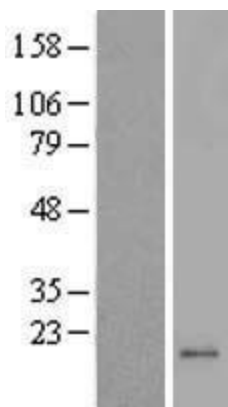
MW: 16.7 kDa

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 RC201482



Western blot validation of overexpression lysate (Cat# [LY406766]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC219347] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).