

## Product datasheet for RC202166

### MRPL40 (NM\_003776) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MRPL40 (NM_003776) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MRPL40
Synonyms:	L40mt; MRP-L22; MRP-L40; MRPL22; NLVCF; URIM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202166 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGACGGCCTCCGTGCTGCGAAGTATCTCGCTAGCCCTGCGCCCGACTAGCGGGCTTCTGGGAAGTTGGC  
 AGACGCAGCTTAGAGAGACTCACCAGCGAGCGTCATTGTTGTCTTCTGGGAAGTCATCCCATGAGATC  
 AGAACCTCTTCGAAAAAGAAGAAGGTAGATCCTAAAAAGACCAAGAAGCAAAGGAGCGCTTGAAAGG  
 AAGATCCGAAAGTGGAAAGGCTACTCAAGAGCTAATTCCTATTGAAGATTTATTACCCCTCTAAAGT  
 TCTTGGATAAAGCAAGAGAGCGCCTCAGGTGGAGCTCACCTTTGAGGAGACTGAGAGGAGAGCTCTGCT  
 TCTGAAGAAGTGGTCCTTGTACAAGCAGCAAGAGCGTAAGATGGAGAGGGACACCATCAGGGCTATGCTA  
 GAAGCCCAGCAGGAAGCTCTGGAGGAAGTGAAGTCCCGAAGCTCCATGCTGAGGCCATCAAGC  
 GGGATCCTAACCTGTTCCCTTTGAGAAGGAAGGGCCACATTACACACCACCGATCCCTAACTACCAACC  
 CCCTGAAGGCAGGTACAATGACATCACCAAGGTGTACACACAAGTGGAGTTTAAGAGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC202166 protein sequence Red=Cloning site Green=Tags(s)
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MTASVLRISLALRPTSGLLGTWQTLRETHQRASLLSFWEIPMRSEPLRKKKKVDPKKDQEAKERLKR  
 KIRKLEKATQELIPIEDFITPLKFLDKARERPQVELTFEETERRALLKKWSLYKQQRKMERDITRAML  
 EAQQEALEELQLESPKLHAEAIKRDPNLFPFEKEGPHYTPPIPNYQPPEGRYNDITKVYTQVEFKR

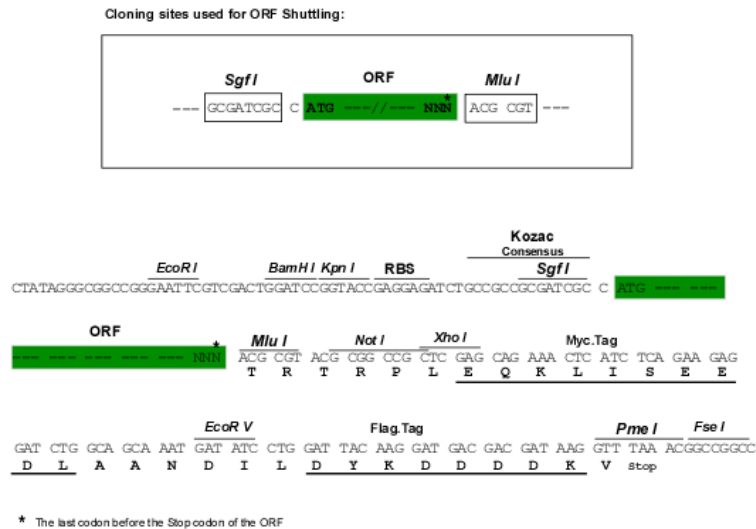
TRTRPLEQKLISEEDLAANDILDYKDDDDKV


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**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6303\\_f12.zip](https://cdn.origene.com/chromatograms/mk6303_f12.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_003776

**ORF Size:** 618 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

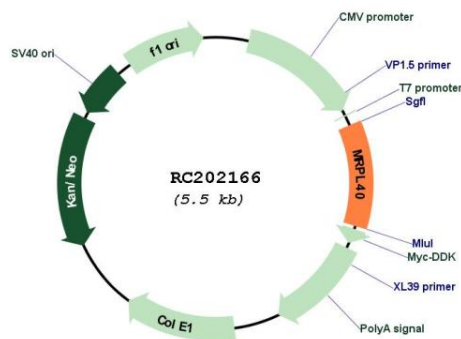
**RefSeq:** [NM\\_003776.3](#)

**RefSeq Size:** 787 bp

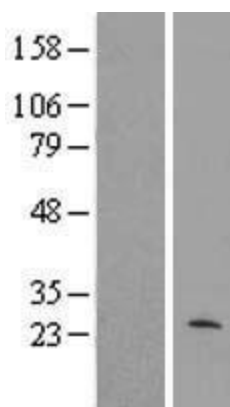
RefSeq ORF: 621 bp  
 Locus ID: 64976  
 UniProt ID: [Q9NQ50](#)  
 Cytogenetics: 22q11.21  
 MW: 24.5 kDa

**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 39S subunit protein. Deletions in this gene may contribute to the etiology of velo-cardio-facial syndrome and DiGeorge syndrome. [provided by RefSeq, Jul 2008]

## Product images:



Circular map for RC202166



Western blot validation of overexpression lysate (Cat# [LY418439]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202166 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).