

Product datasheet for **RC201832**

MRPL12 (NM_002949) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MRPL12 (NM_002949) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MRPL12
Synonyms:	5c5-2; L12mt; MRP-L31/34; MRPL7; MRPL7/L12; RPML12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201832 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**

ATGCTGCCGGCGCGCTCGCCCCCTGTGGGGCCTTGCCTTGGGCTTCGGGCCGCTGCGTTCCGCCTTG
 CCAGGCGACAGGTGCCATGTGTCTGTGCCGTGCGACATATGAGGAGCAGCGGCCATCAGAGGTGTGAGGC
 CCTCGCTGGTGCACCCCTGGATAACGCCCCAAGGAGTACCCCCCAAGATACAGCAGCTGGTCCAGGAC
 ATGCCAGCCTCACTCTTGGAAATCTCAGACCTCAACGAGCTCCTGAAGAAAACGTTGAAGATCCAGG
 ATGTCGGGCTTGTCCGATGGGTGGTGTGATGTCTGGGGCTGTCCCTGCTGCAGCAGCCAGGAGCGGT
 GGAAGAAGATATCCCATAGCGAAAGAACGGACACATTTACCGTCCGCCTGACCGAGGCGAAGCCCGTG
 GACAAAGTGAAGCTGATCAAGGAAATCAAGAACTACATCCAAGGCATCAACCTCGTCCAGGCAAAGAAGC
 TGGTGGAGTCCCTGCCCCAGGAAATCAAAGCCAATGTCGCCAAAGCTGAGGCGGAGAAGATCAAGGCGGC
 CCTGGAGGCGGTGGGCGGCACCGTGGTTCTGGAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC201832 protein sequence Red=Cloning site Green=Tags(s)
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MLPAAARPLWGPCLGLRAAARLARRQVPCVCAVRHMRSSGHQRCEALAGAPLDNAPKEYPPKIQQLVQD
 IASLTLEISDLNELLKTKLIQDVGLVPMGGVMSGAVPAAAAQEAVEEDIPIAKERTHTFTVRLTEAKPV
 DKVKLIEIKNYIQGINLVQAKKLVESLPQEIKANVAKAEAEKIKAALEAVGGTVVLE

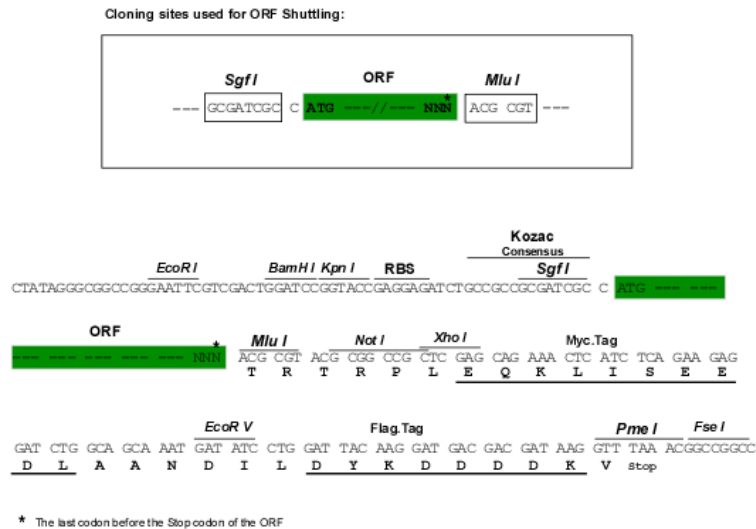
TRTRPLEQKLISEEDLAANDILDYKDDDDKV


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Chromatograms: https://cdn.origene.com/chromatograms/mk6384_g12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002949

ORF Size: 594 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_002949.4](#)

RefSeq Size: 1032 bp

RefSeq ORF: 597 bp

Locus ID: 6182

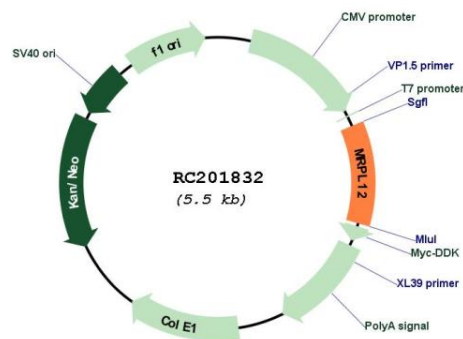
UniProt ID: [P52815](#)

Cytogenetics: 17q25.3

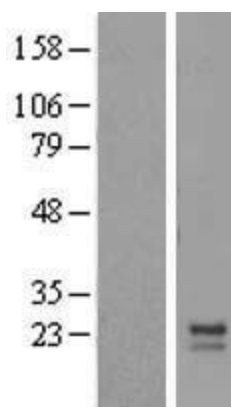
MW: 21.3 kDa

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 which forms homodimers. In prokaryotic ribosomes, two L7/L12 dimers and one L10 protein form the L8 protein complex. [provided by RefSeq, Jul 2008]

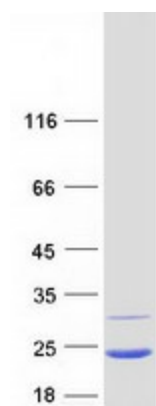
Product images:



Circular map for RC201832



Western blot validation of overexpression lysate (Cat# [LY418996]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201832 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MRPL12 protein (Cat# [TP301832]). The protein was produced from HEK293T cells transfected with MRPL12 cDNA clone (Cat# RC201832) using MegaTran 2.0 (Cat# [TT210002]).