

Product datasheet for RC204786

MRPL46 (NM_022163) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MRPL46 (NM_022163) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MRPL46
Synonyms:	C15orf4; LIECG2; P2ECSL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204786 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCGCCCGTAAGGCGGACGCTGTTAGGGGTGGCGGGGGTTGGCGCGGTTTCGAGAGGCTCTGGG
CCGGCAGTCTAAGCTCTCGCAGCCTGGCTCTTGCAGCCGCACCCTCAAGCAACGGATCCCATGGCGCTT
GTTGGGCGGTTGTGCCTGCAGCGGCCACCTGTAGTCTCCAAGCCGTTGACCCATTGCAGGAAGAGATG
GCGTCTCTACTGCAGCAGATTGAGATAGAGAGAAGCCTGTATTACAGACCAGAGCTTCGTGCTCTGGATG
AAAACCAGCGACTGGCAAAGAAGAAAGCTGACCTTCATGATGAAGAAGATGAACAGGATATATTGCTGGC
GCAAGATTTGGAAGATATGTGGGAGCAGAAATTTCTACAGTTCAAACCTGGAGCTCGCATAACAGAAGCT
GATGAAAAGAATGACCGAACATCCCTGAACAGGAAGCTAGACAGGAACCTTGTCCTGTTAGTCAGAGAGA
AGTTTGGAGACCAGGATGTTTGGATACTGCCCCAGGCAGAGTGGCAGCCTGGGGAGACCCTTCGAGGAAC
AGCTGAACGAACTCTGGCCACACTCTCAGAAAACAACATGGAAGCCAAGTTCTAGGAAATGCACCCTGT
GGCACTACACATTCAAGTTCAGGCAATGCGGACAGAGAGTAACCTCGGAGCCAAGGTGTTCTTCT
TCAAAGCACTGCTATTAAGTGGAGACTTTCCAGGCTGGGAATAAGGGCCATCATGTGTGGTCACTAA
GGATGAGCTGGTGACTATTTGAAACAAAATACCTGGCCCAAGTTAGGAGGTTTGTTCAGACCTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204786 protein sequence
 Red=Cloning site Green=Tags(s)

MAAPVRRITLLGVAGGWRRFERLWAGSLSSRSLALAAAPSSNGSPWRLLGALCLQRPPVVSPLTPLQEEM
 ASLLQQIEIERSLYSDHELRALDENQRLAKKKADLHDEEDEQDILLAQDLEDMWKFLQFKLGARITEA
 DEKNDRTSLNRKLDLDRNLVLLVREKFGDQDVWILPQAEWQPGETLRGTAERTLATLSENNMEAKFLGNAPC
 GHYTFKFPQAMRTESNLGAKVFFKALLLTGDFSQAGNKGHHVWTKDELGDYLPKYLAQVRRFVSDL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6171_c02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_022163

ORF Size: 837 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_022163.4](#)

RefSeq Size: 1020 bp

RefSeq ORF: 840 bp

Locus ID: 26589

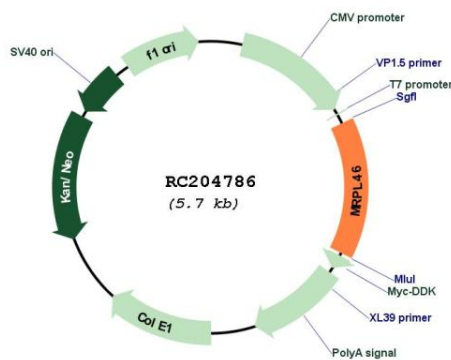
UniProt ID: [Q9H2W6](#)

Cytogenetics: 15q25.3

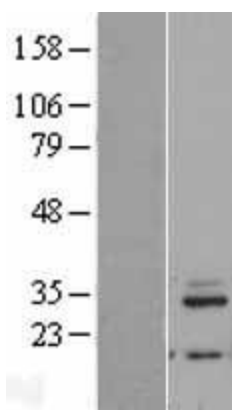
MW: 31.7 kDa

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 39S subunit protein. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC204786



Western blot validation of overexpression lysate (Cat# [LY402916]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204786 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

Coomassie blue staining of purified MRPL46 protein (Cat# [TP304786]). The protein was produced from HEK293T cells transfected with MRPL46 cDNA clone (Cat# RC204786) using MegaTran 2.0 (Cat# [TT210002]).