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Product datasheet for RC202659

MRPS18C (NM_016067) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MRPS18C (NM_016067) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MRPS18C
Synonyms:	CGI-134; MRP-S18-1; MRP-S18-c; MRPS18-1; mrps18-c; S18mt-c
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC202659 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCGCTGTGGTTGCTGTTTGCGGTGGTCTAGGGAGGAAGAAGTTGACACACTTGGTAACGGCTGCTG
TCAGCCTTACACATCCCGGGACTCACACGGTGCTTTGGAGAAGAGGTTGTTCACAACAGGTATCCAGCAA
TGAGGACCTGCCCATTTCAATGGAAAATCCTTATAAAGAACCTCTTAAGAAATGTATCTTGTGTGGAAAG
CATGTAGATTATAAGAATGTACAGCTTTTGTCCCAGTTTGTTTCTCCATTTACTGGATGCATTTATGGAA
GGCACATTACAGGTCTTTGTGGGAAGAAACAGAAAGAAATCACAAAAGCAATTAAGAGAGCTCAAATAAT
GGGGTTTATGCCAGTTACATACAAGGATCCTGCATATCTCAAGGACCCTAAAGTTTGTAACATCAGATAT
CGGGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC202659 protein sequence
Red=Cloning site Green=Tags(s)

MAAVVAVCGGLGRKKLTHLVTAAVSLTHPGTHTVLWRRGCSQQVSSNEDLPISMENPYKEPLKKCILCGK
HVDYKNVQLLSQFVSPFTGCIYGRHITGLCGKKQKEITKAIKRAQIMGFMPVTYKDPAYLKDPKVCNIRY
RE

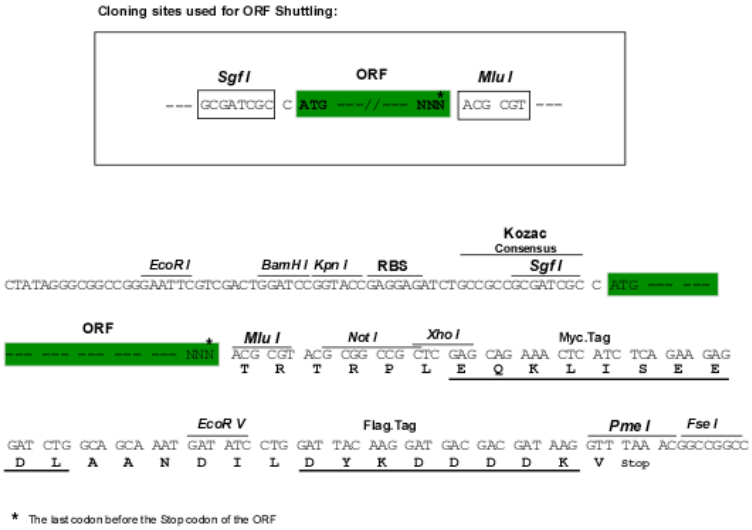
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6415_f04.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_016067

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.

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

RefSeq: NM_016067.4

RefSeq Size: 1101 bp

RefSeq ORF: 429 bp

Locus ID: 51023

UniProt ID: Q9Y3D5

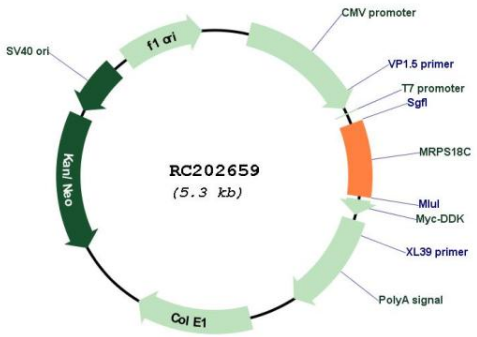
Cytogenetics: 4q21.23

Domains: Ribosomal_S18

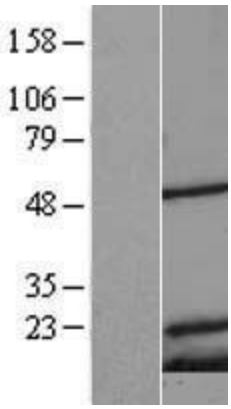
MW: 15.8 kDa

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 28S subunit protein that belongs to the ribosomal protein S18P family. The encoded protein is one of three that has significant sequence similarity to bacterial S18 proteins. The primary sequences of the three human mitochondrial S18 proteins are no more closely related to each other than they are to the prokaryotic S18 proteins. Pseudogenes corresponding to this gene are found on chromosomes 8p, 12p, 15q, and 22q. [provided by RefSeq, Jul 2008]

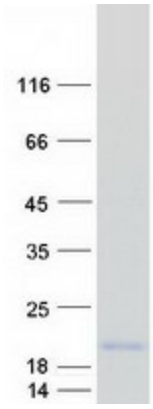
Product images:



Circular map for RC202659



Western blot validation of overexpression lysate (Cat# [LY414215]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202659 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MRPS18C protein (Cat# [TP302659]). The protein was produced from HEK293T cells transfected with MRPS18C cDNA clone (Cat# RC202659) using MegaTran 2.0 (Cat# [TT210002]).