

## Product datasheet for **RC205837**

### MRPS16 (NM\_016065) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MRPS16 (NM\_016065) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** MRPS16  
**Synonyms:** CGI-132; COXPD2; MRP-S16; RPMS16  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC205837 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTCCACCTCACTACTCTCTCTGCAAGGCCTACCGTGGGGGCCACTTAACCATCCGCCTTGCCCTGG  
 GTGGCTGCACCAATCGGCCGTTCTACCGCATTGTGGCTGCTCACAACAAGTGTCCAGGGATGGCCGTTT  
 CGTAGAGCAGCTGGGCTCCTATGATCCATTGCCAACAGTCATGGAGAAAACTCGTTGCCCTCAACCTA  
 GACAGGATCCGTCATTGGATTGGCTGCGGGGCCACCTCTCTAAGCCTATGGAAAAGCTTCTGGGTCTTG  
 CTGGCTTTTTCCCTCTGCATCCTATGATGATCACAATGCTGAGAGACTGCGAAGGAAACGGGCACGTGA  
 AGTCTGTAGCTTCTCAGAAAACAGATGCAGAAGCTACAGATACAGAGGCTACAGAAACA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC205837 protein sequence  
 Red=Cloning site Green=Tags(s)  
 MVHLTLLCKAYRGGHLTIRLALGGCTNRPFYRIVAAHNKCPRDGRFVEQLGSYDPLPNSHGKLVALLNL  
 DRIRHWIGCGAHLKPMKLLGLAGFFPLHPMMITNAERLRRKRAREVLLASQKTDAAETDEATEET

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6433\\_f05.zip](https://cdn.origene.com/chromatograms/mk6433_f05.zip)

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_016065

**ORF Size:** 411 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\\_016065.4](#)

**RefSeq Size:** 2651 bp

**RefSeq ORF:** 414 bp

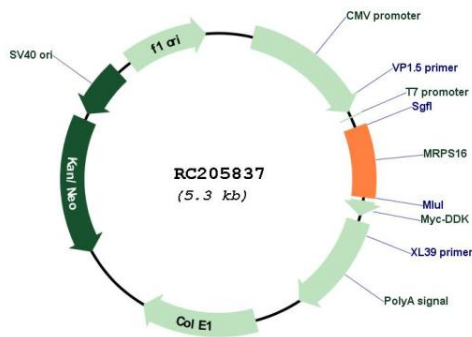
**Locus ID:** 51021

**UniProt ID:** [Q9Y3D3](#)

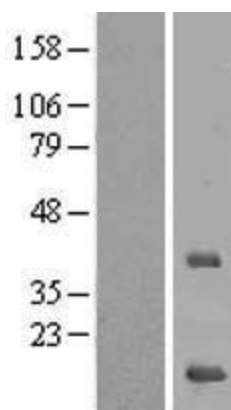
**Cytogenetics:** 10q22.2  
**Domains:** Ribosomal\_S16  
**MW:** 15.3 kDa

**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 28S subunit protein that belongs to the ribosomal protein S16P family. The encoded protein is one of the most highly conserved ribosomal proteins between mammalian and yeast mitochondria. Three pseudogenes (located at 8q21.3, 20q13.32, 22q12-q13.1) for this gene have been described. [provided by RefSeq, Jul 2008]

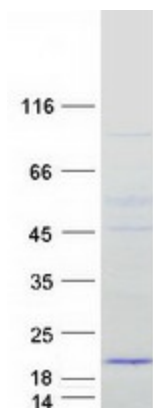
**Product images:**



Circular map for RC205837



Western blot validation of overexpression lysate (Cat# [LY414213]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205837 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MRPS16 protein (Cat# [TP305837]). The protein was produced from HEK293T cells transfected with MRPS16 cDNA clone (Cat# RC205837) using MegaTran 2.0 (Cat# [TT210002]).