

Product datasheet for **RC203039**

MRPL48 (NM_016055) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MRPL48 (NM_016055) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: MRPL48
Synonyms: CGI-118; HSPC290; L48MT; MRP-L48
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC203039 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGCGGAACCTTGGGAAAGGTGCTGTGCCTGAGGAACAATACCATTTTAAAGCAAGCCTTTTCTCTCT
TAAGGTTTAGAAGCTTCAGGAGAGAAGCCCATCTATTCTGTAGGTGGAATCTACTAAGTATCAGTCGGCC
CTACAAGACAAAGCCACCCACGGCATTGGAAAGTACAAGCACTTAATTAAGCAGAAGAGCCCAAGAAG
AAGAAGGGAAAAGTGAAGTGAGAGCCATTAATTTGGGGACAGATTATGAATATGGGTTTTAAATATTC
ATCTGACTGCATATGATATGACCCTGGCAGAGAGTTATGCCAGTATGTTACAACCTCTGCAACTCTCT
CTCCATTAAGTCGAGGAAAGTTATGCAATGCCAACCAAAACCATAGAAGTGTTCAGATTGCAGGACCAA
GGCAGCAAAATGCTCCTGGACTCAGTGCTTACCACCCATGAGCGAGTGGTTCAGATCAGCGGTTTGAGTG
CTACGTTTGCAGAAATTTCTTGAAATAATCCAAGCAGTCTTCTGAAGGAGTCAGACTGTCAGTGAA
GGAGCACACTGAAGAAGACTTCAAGGGACGATTCAAAGCTCGACCAGAAGTGAAGAAGTGTGGCCAAG
TTGAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC203039 protein sequence
Red=Cloning site Green=Tags(s)

MSGTLGKVLCLRNNTIFKQAFSLLRFRTSGEKPIYSVGGILLSISRYPYKTPHTGIGKYKHLIKAEPPK
 KKGKVEVRAINLGTDYEVGLNIHLTAYDMTLAESYAQYVHNLNSLSIKVEESYAMPPTKTIEVLQLQDQ
 GSKMLLDVLTTHERVVQISGLSATFAEIFLEIIQSSLPQVRLSVKHETEEDFKGRFKARPELEELLAK
 LK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6434_d08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_016055

ORF Size: 636 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_016055.6](#)

RefSeq Size: 997 bp

RefSeq ORF: 639 bp

Locus ID: 51642

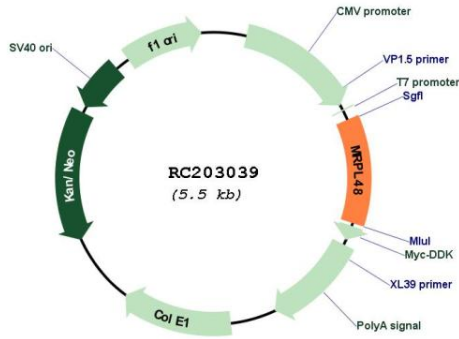
UniProt ID: [Q96GC5](#)

Cytogenetics: 11q13.4

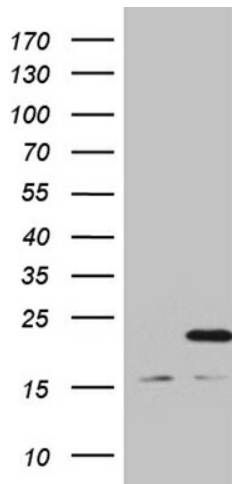
MW: 23.9 kDa

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. A pseudogene corresponding to this gene is found on chromosome 6p. Several transcript variants, some protein-coding and some non-protein coding, have been found for this gene. [provided by RefSeq, Jan 2016]

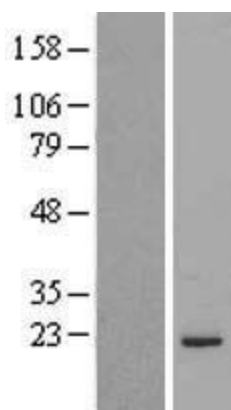
Product images:



Circular map for RC203039



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MRPL48 (Cat# RC203039, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MRPL48 (Cat# [TA810858])(1:2000). Positive lysates [LY414220] (100ug) and [LC414220] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY414220]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203039 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).