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Product datasheet for RC208068

MRPL43 (NM_176792) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MRPL43 (NM_176792) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MRPL43
Synonyms:	bMRP36a; L43mt; MRP-L43
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC208068 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACGGCGCGCGGGACTCCGAGCCGCTTCTTGGCCAGCGTTCTCCACAACGGACTGGGTCGCTATGTGC
AGCAGCTGCAGCGTCTGAGCTTCAGCGTCAGCCGCGACGGCGCCTCGTCTCGCGGCGCCAGGGAGTTCGT
GGAGCGGGAGGTGATCGACTTCGCCCGACGGAATCCAGGGGTCGTAATATATGTAAACTCGCGTCCGTGC
TGCGTGCCCAGAGTAGTGGCCGAATACCTTAACGGGGCTGTGCGCGAGGAGAGCATCCACTGCAAGTCGG
TCGAGGAGATCTCGACGCTGGTGCAGAAGCTGGCCGACCAGTCGGGCTTGGACGTGATCCGCATCCGCAA
GCCCTTCCACACCGACAACCCTAGCATCCAGGGCCAGTGGCACCCCTTCACCAACAAGCCGACCACGTTC
CGCGGGCTACGCCCCCGAGAGGTTCAGGATCCTGCCCCAGCCCAGGACACTGGCCTGAGACTGTCTGCAG
TTGCACCGCAGATCCTCCTGCCCGGCTGGCCCGACCCACCAGACCTCCCCACAGTGGATCCTATCTCATC
CTCATTGACCTCTGCTCCAGCCCCTATGCTGTCCGCAGTTTCTTGCCTCCCGATTGTCCCTGCACTGACC
ACTGTGTGCTCAGCG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC208068 protein sequence
Red=Cloning site Green=Tags(s)

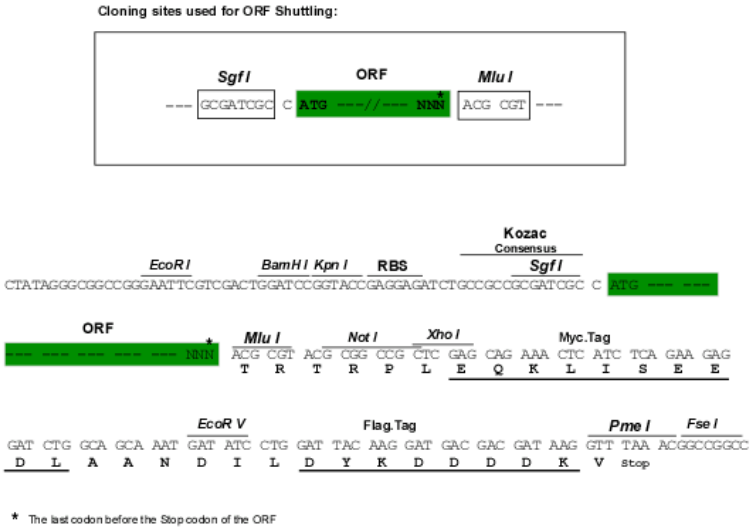
MTARGTPSRFLASVLHNGLGRYVQQLQRLSFSVSRDGASSRGAREFVEREVIDFARRNPGVVIYVNSRPC
CVPRVVAEYLNGAVREESIHCKSVEEISTLVQKLADQSGLDVIRIRKPFHTDNPSIQGQWHPFTNKPTTF
RGLRPREVQDPAPAQDTGLRLSAVAPQILLPGWPDPPDLPTVDPISSSLTSAPAPMLSAVSCLPIVPALT
TVCSA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6342_e07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_176792

ORF Size: 645 bp

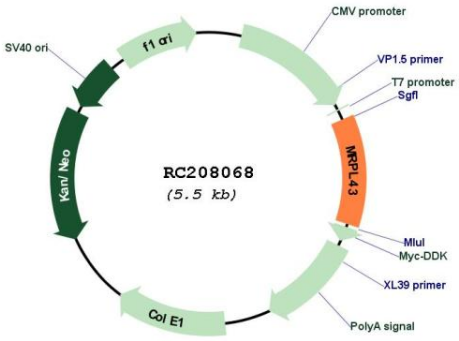
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

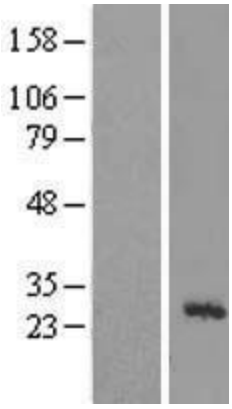
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_176792.3
RefSeq Size:	2151 bp
RefSeq ORF:	648 bp
Locus ID:	84545
UniProt ID:	Q8N983
Cytogenetics:	10q24.31
MW:	23.4 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. This gene and the gene for a semaphorin class 4 protein (SEMA4G) overlap at map location 10q24.31 and are transcribed in opposite directions. Sequence analysis identified multiple transcript variants encoding at least four different protein isoforms. [provided by RefSeq, Jul 2008]

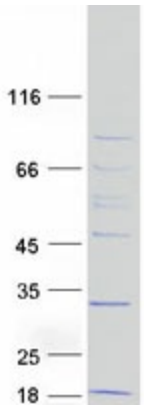
Product images:



Circular map for RC208068



Western blot validation of overexpression lysate (Cat# [LY406120]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208068 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MRPL43 protein (Cat# [TP308068]). The protein was produced from HEK293T cells transfected with MRPL43 cDNA clone (Cat# RC208068) using MegaTran 2.0 (Cat# [TT210002]).