

Product datasheet for **RC218954**

MRPL45 (NM_032351) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MRPL45 (NM_032351) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MRPL45
Synonyms:	L45mt; MRP-L45
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218954 representing NM_032351 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCAGCCCCATACCTCAAGGGTCTCTTGTTCGAGGGTTTGGGCTGGTGGTCTCGGCAGCCAG
 TTCTGGTGACTCAGTCCGCAGCTATAGTTCCAGTAAGAACTAAAAACGTTTCACACCTCCTATTTATCA
 ACCTAAATTTAAACAGAAAAGGAGTTTATGCAACATGCCCGAAAGCAGGATTGGTTATTCCTCCAGAA
 AAATCGGACCGTTCATACATCTGGCCTGTACAGCTGGTATATTTGATGCCTATGTTCTCCTGAGGGTG
 ATGCACGCATATCATCTCTTTCAAAGGAGGGACTGATAGAGAGAACTGAACGAATGAAGAAGACTATGGC
 ATCACAAGTGTAATCCGAGGATAAAAGACTATGATGCCAATTTAAAAATAAGGACTTCCTGAAAAA
 GCTAAGGATATCTTTATTGAAGCTCACCTTTGTCTAAATAACTCAGACCATGACCGACTTCATACCTTGG
 TAACTGAACACTGTTTTCCAGACATGACTTGGGACATCAAATATAAGACCGTCCGCTGGAGCTTTGTGGA
 ATCTTTAGAGCCCTCTCATGTTGTTCAAGTTCGCTGTTCAAGTATGATGAACAGGGCAACGTGTACGGC
 CAGATCACCGTACGCATGCACACCGGCAGACTCTGGCCATCTATGACCGGTTTGCCGGTTGATGTATG
 GACAGGAAGATGTACCAAGGATGTCTGGAGTATGTTGATTCGAAAAGCAGTTGACAAACCCCTATGG
 AAGCTGGAGAATGCATACCAAGATCGTTCCCCATGGGCACCCCTAAGCAGCCCATCCTTAAGACGGTG
 ATGATCCCTGGCCCTCAGCTGAAACCAGAAGAAGATATGAAGAGGCACAAGGAGAGGCCCAGAAGCCTC
 AGCTAGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC218954 representing NM_032351
 Red=Cloning site Green=Tags(s)

MAAIPQGFSCLSRVLGWWSRQPVLTQSAIIPVVRTKKRFTPIYQPKFKTEKEFMQHARKAGLVIPPE
 KSDRSIHLACTAGIFDAYVPEGDARISSLSKEGLIERTERMKKTASQVSIRRIKDYDANFKIKDFPEK
 AKDIFIEAHLCLNNSDHDRLHTLVTEHCFDMDTWDIKYKTVRWSFVESLEPSHVQVRCSSMMNQGNVYG
 QITVRMHTRQTLAIYDRFGRLMYGQEDVPKDVLEYVVFEEKQLTNPYGSWRMHTKIVPPWAPPKQPIILKTV
 MIPGPQLKPEEEYEEAQGEAQKPQLA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_032351

ORF Size: 918 bp

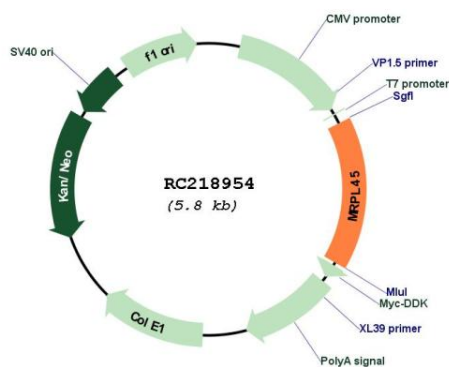
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

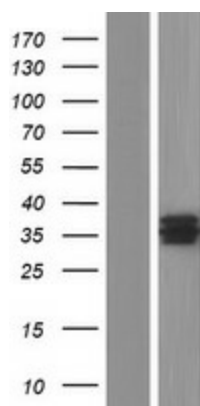
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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:	<u>NM_032351.3, NP_115727.3</u>
RefSeq Size:	1713 bp
RefSeq ORF:	921 bp
Locus ID:	84311
Cytogenetics:	17q12
MW:	35.1 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. Alternative splicing results in multiple transcript variants. Pseudogenes corresponding to this gene are found on chromosomes 2p and 17q. [provided by RefSeq, May 2013]

Product images:



Circular map for RC218954



Western blot validation of overexpression lysate (Cat# [LY410188]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218954 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).