GORĨGene
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## Product datasheet for RC220629

## MRPL4 (NM_015956) Human Tagged ORF Clone

## Product data:

Product Type:
Product Name:

## Tag:

Symbol:
Synonyms:
Mammalian Cell
Selection:
Vector:
E. coli Selection:

ORF Nucleotide
Sequence:

Expression Plasmids
MRPL4 (NM_015956) Human Tagged ORF Clone
Myc-DDK
MRPL4
CGI-28; L4mt
Neomycin
pCMV6-Entry (PS100001)
Kanamycin ( $25 \mathrm{ug} / \mathrm{mL}$ )
>RC220629 representing NM_015956
Red=Cloning site Blue=ORF Green=Tags(s)

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## TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

 GCCGCGATCGCCATGCTGCAGTTCGTCCGGGCCGGGGCGCGGGCCTGGCTTCGGCCTACCGGCAGCCAGGGCCTGAGTTCCC TGGCGGAAGAGGCAGCGCGTGCGACCGAGAACCCGGAGCAGGTGGCGAGCGAGGGTCTCCCGGAGCCCGT GCTGCGCAAAGTCGAGCTCCCGGTACCCACTCATCGACGCCCAGTGCAGGCCTGGGTCGAGTCCTTGCGG GGCTTCGAGCAGGAGCGCGTGGGCCTGGCCGACCTGCACCCCGATGTTTTCGCCACCGCGCCCAGGCTGG ACATACTGCACCAGGTTGCTATGTGGCAGAAGAACTTCAAGAGAATTAGCTATGCCAAGACCAAGACGAG AGCCGAGGTGCGGGGCGGTGGCCGGAAGCCTTGGCCGCAGAAAGGCACTGGGCGGGCCCGGCATGGCAGC ATCCGCTCTCCGCTCTGGCGAGGAGGAGGTGTTGCCCATGGCCCCCGGGGCCCCACAAGTTACTACTACA TGCTGCCCATGAAGGTGCGGGCGCTGGGTCTCAAAGTGGCACTGACCGTCAAGCTGGCCCAGGACGACCT GCACATCATGGACTCCCTAGAGCTGCCCACCGGAGACCCACAGTACCTGACAGAGCTGGCGCACTACCGC CGCTGGGGGGACTCCGTACTCCTCGTGGACTTAACACACGAGGAGATGCCACAGAGCATCGTGGAGGCCA CCTCTAGGCTTAAGACCTTCAACTTGATCCCGGCTGTTGGCCTAAATGTGCACAGCATGCTCAAGCACCA GACGCTGGTCCTGACGCTGCCCACCGTCGCCTTCCTGGAGGACAAGCTGCTCTGGCAGGACTCACGTTAC AGACCCCTCTACCCCTTCAGCCTGCCCTACAGCGACTTCCCCCGACCCCTACCCCACGCTACCCAGGGCC CAGCGGCCACCCCGTACCACTGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

| Protein Sequence: | >RC220629 representing NM_015956 |
| :---: | :---: |
|  | Red=Cloning site Green=Tags(s) |
|  | MLQFVRAGARAWLRPTGSQGLSSLAEEAARATENPEQVASEGLPEPVLRKVELPVPTHRRPVQAWVESLR |
|  | GFEQERVGLADLHPDVFATAPRLDILHQVAMWOKNFKRISYAKTKTRAEVRGGGRKPWPQKGTGRARHGS |
|  | IRSPLWRGGGVAHGPRGPTSYYYMLPMKVRALGLKVALTVKLAQDDLHIMDSLELPTGDPQYLTELAHYR |
|  | RWGDSVLLVDLTHEEMPQSIVEATSRLKTFNLIPAVGLNVHSMLKHQTLVLTLPTVAFLEDKLLWQDSRY |
|  | RPLYPFSLPYSDFPRPLPHATQGPAATPYHC |
|  | TRTRPLEQKLISEEDLAANDILDYKDDDDKV |
| Chromatograms: | https://cdn.origene.com/chromatograms/mk6172 a12.zip |
| Restriction Sites: | Sgfl-Mlul |
| Cloning Scheme: | Cloning stes used for orf Shutiling: |
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| ACCN: | NM_015956 |
| ORF Size: | 933 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 $5,000 \mathrm{xg}$ for 5 min . <br> 2. Carefully open the tube and add 100 ul of sterile water to dissolve the DNA. <br> 3. Close the tube and incubate for 10 minutes at room temperature. <br> 4. Briefly vortex the tube and then do a quick spin (less than 5000 xg ) to concentrate the liquid at the bottom. <br> 5. Store the suspended plasmid at $-20^{\circ} \mathrm{C}$. The DNA is stable for at least one year from date of shipping when stored at $-20^{\circ} \mathrm{C}$. |
| :---: | :---: |
| RefSeq: | NM 015956.3 |
| RefSeq Size: | 1511 bp |
| RefSeq ORF: | 936 bp |
| Locus ID: | 51073 |
| UniProt ID: | Q9BYD3 |
| Cytogenetics: | 19p13.2 |
| Domains: | Ribosomal_L4 |
| MW: | 34.7 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 28 S subunit and a large 39 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 5 S 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. Sequence analysis identified alternatively spliced variants that encode different protein isoforms. [provided by RefSeq, Jul 2008] |

## Product images:



Circular map for RC220629


Western blot validation of overexpression lysate (Cat\# [LY414308]) using anti-DDK antibody (Cat\# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220629 using transfection reagent MegaTran 2.0 (Cat\# [TT210002]).

