

Product datasheet for **SC110400**

MRPL42 (NM_172177) Human Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | MRPL42 (NM_172177) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | MRPL42 |
| Synonyms: | HSPC204; L31MT; L42MT; MRP-L31; MRP-L42; MRP-S32; MRPL31; MRPS32; PTD007; RPML31; S32MT |
| Mammalian Cell Selection: | None |
| Vector: | <u>pCMV6-XL4</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| Fully Sequenced ORF: | >OriGene ORF within SC110400 sequence for NM_172177 edited (data generated by NextGen Sequencing) ATGGCTGCTAGCTGCAGTAAAATGGGTGATGTCAAAGAGAACTATCTTGAAACATTTATTT CCAGTCCAAAATGGAGCTTTATATTGTGTTTGCATAAATCTACGTATTCTCCTCTACCA GATGACTATAATTGCAACGTAGAGCTTGCTCTGACTTCTGATGGCAGGACAATAGTATGC TACCACCTTCTGTGGACATTCATATGAACACACAAAACCTATCCCTCGGCCAGATCCT GTGCATAATAATGAAGAAACACATGATCAAGTGCTGAAAACCAGATTGGAAGAAAAAGTT GAACACCTTGAGGAAGGACCTATGATAGAACAAGTTAGCAAAATGTTCTTTACTACTAAG CACCGTTGGTATCCTCATGGACGGTATCACAGATGTCGTAAGAATCTGAATCCTCCAAA GACAGATGA Clone variation with respect to NM_172177.3 |



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|-------------------------------------|---|
| 5' Read Nucleotide Sequence: | >OriGene 5' read for NM_172177 unedited CGAATTCGGCACGAGGAGAAGCCGTCAAGGAGTAGAAATTGGTATGCTTAGAAGCAGATT CTAAAAGCAGTTTCTCTTCAGAACATCTTTTTTCATACCACTTGATAAGCATCTTGAAAC ACCATGGCTGTAGCTGCAGTAAATGGGTGATGTCAAAGAGAAGCTATCTTGAAACATTTA TTCCAGTCCAAAATGGAGCTTTATATTGTGTTTGCATAAATCTACGTATTCTCCTCTA CCAGATGACTATAATTGCAACGTAGAGCTTGCTCTGACTTCTGATGGCAGGACAATAGTA TGCTACCACCCTTCTGTGGACATTCCATATGAACACACAAAACCTATCCCTCGGCCAGAT CCTGTGCATAAATAATGAAGAAACACATGATCAAGTGCTGAAAACCAGATTGGAAGAAAAA GTTGAACACCTTGAGGAAGGACCTATGATAGAACAACCTTAGCAAAATGTTCTTTACTACT AAGCACCGTTGGTATCCTCATGGACGGTATCACAGATGTCGTAAGAATCTGAATCCTCCA AAAGACAGATGATGCGGAGGTTCTGGGGGAATCAAAGAGAAATGTGCCTCATTTGCCAT TTGAGAAAATGCAGTCTGGTGTATTTCAGTAATATATAGTAAAGTAATAATGATAAAATAT CTTTTCATATATTAGAATGTGTACTTTTATATAAAGTAATTCTGGATTTGACATTCTCAT TTAGAGAAACCTATTTTCTTTNTCTTTNTCTATTTTAGTGTTCATT |
| Restriction Sites: | NotI-NotI |
| ACCN: | NM_172177 |
| OTI Disclaimer: | Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP). |
| 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: | <ol style="list-style-type: none">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: | <u>NM_172177.1</u> , <u>NP_751917.1</u> |
| RefSeq Size: | 2073 bp |
| RefSeq ORF: | 429 bp |
| Locus ID: | 28977 |
| UniProt ID: | <u>Q9Y6G3</u> |
| Cytogenetics: | 12q22 |

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 protein identified as belonging to both the 28S and the 39S subunits. Alternative splicing results in multiple transcript variants. Pseudogenes corresponding to this gene are found on chromosomes 4q, 6p, 6q, 7p, and 15q. [provided by RefSeq, May 2011]

Transcript Variant: This variant (2) differs in the 5' UTR, compared to variant 1. Both variants 1 and 2 encode the same protein.