

## Product datasheet for **SC112979**

### MRPL23 (NM\_021134) Human Untagged Clone

#### Product data:

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Product Name:             | MRPL23 (NM_021134) Human Untagged Clone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Tag:                      | Tag Free                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Symbol:                   | MRPL23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Synonyms:                 | L23MRP; RPL23; RPL23L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Mammalian Cell Selection: | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Vector:                   | <u>pCMV6-XL5</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Fully Sequenced ORF:      | <p>&gt;OriGene ORF within SC112979 sequence for NM_021134 edited (data generated by NextGen Sequencing)</p> <p>ATGGCGCGGAATGTGGTGTACCCCTGTACCGGCTGGGTGGCCCAACTTCGGGTGTTTCGAACCAACTTCTTCATTGAGCTGGTGCGCCCGGTGTGGCCAGCCGAGGACACCGTG CAGTTCCGGATCCCATGGAAATGACAAGGGTGGACCTCAGGAATTACCTCGAGGGCATC TATAACGTGCCCGTGGCTGCTGTGCGGACACGGGTGCAGCATGGCTCTAACAAGAGAAGA GATCACAGAAACGTGAGGATCAAGAAGCCGGAACAAGGTCGCCTACGTGCAGCTGGCC CATGGACAGACCTTCACGTTCCAGATCTGTTCCCGAGAAAGACGAGAGCCCTGAAGGC AGCGCTGCCGACGACCTCTACAGCATGCTCGAGGAGGAGAGGCAGCAGAGGCAGAGCAGC GACCCGCGCGGGGCGGCGTCCCGAGCTGGTTCGGGCTGTGA</p> <p>Clone variation with respect to NM_021134.3</p> |



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_021134 unedited  
 ATACGACTCACTATAGGGCGGCCGCAATTCGGCACGAGGCCCCGGNAGCGCGCTGGCC  
 GCCATGGCGCGGAATGTGGTGTACCCCTGTACCGGTGGGTGGCCACAACCTCGGGT  
 TTCCGAACCACTTCTTCATTAGCTGGTGGCGCCCGGTGGCCAGCCCGAGGACACC  
 GTGCAGTTCGGATCCCCATGGAATGACAAGGTGGACCTCAGGAATTACCTCGAGGGC  
 ATCTATAACGTGCCGTGGCTGCTGTGCGGACACGGGTGCAGCATGGCTCTAACAAGAGA  
 AGAGATCACAGAAACGTGAGGATCAAGAAGCCGACTACAAGTGCCTACGTGCAGCTG  
 GCCATGGACAGACCTTACGTTCCAGATCTGTTTCCGAGAAAGACGAGAGCCCTGAA  
 GGCAGCGCTGCCGACGACCTCTACAGCATGCTCGAGGAGGAGAGGCAGCAGAGGCAGAGC  
 AGCGACCCGCGCGGGGGCGGCTCCCCAGCTGGTTTGGGCTGTGACGNGTGGCCAGCA  
 GGGACGCGCCCCAGGTGGGCAGCTGTGGCAGAGCAGCAGCCGCGGGGGCGGCATCCC  
 AGCTGGGTTTGGGCGGTGACGGGGGCGGCCAGGAGCGCGCCCGAGGTGGGCAGCTGT  
 GGCAAAGCAGTCCCGACACCTANATANNAGTCTTGCTGCAGGAAAAAAAAAAAAAAC  
 TCGACTCTAGNATTGCGGCCCGGTCTAAGCTGGTTCCTGAACAGATCCCGGGTGCCA  
 TCCTGTGACCCCTCCCAGTGCCTCTCCTGCCCTTGAAAGTTGCCACTCCAGTGCCAC  
 CACTTTGTCTATAAAATTAAGTTGCTNATTTTGTGAAGTAGGGTCCTTTATAAATATG  
 GNGNGGGGGGGGGGGTNNNNNNNANGGNNNNNGNNNAACANNNNNAGCCGCCG  
 CCGCCCTTGGGGACCACTGTGGGGACGCACAACA

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_021134 unedited  
 AGAGTCGAGTTTTTTTTTTTTTTTTTCTGCAGCAAGACTTTTATTTAGGTGTCGGGAC  
 TGCTCTGCCACAGCTGCCACCTGGGGCGCGTCCCTGCTGGCCGCCCCGTACGGCCCGA  
 ACCAGCTGGGGATGCCGCCCCGCGGGTCTGCTCTGCCACAGCTGCCACCTGGGG  
 CGCGTCCCTGCTGGCCACCCGTCACAGCCGAACAGCTGGGGACGCCGCCCGCGCG  
 GGTGCTGCTCTGCCTCTGCTGCCTCTCCTCGAGCATGCTGTAAAGGTGTCGGCAG  
 CGCTGCCTTCAGGGCTCTCGTCTTTCTCGGAAACAGATCTGGGAACGTGAAGGTCTGTC  
 CATGGGCCAGCTGCAGTAGGCGACCTTGAGTCCGGCTTCTTGATCCTCACGTTTCTGT  
 GATCTCTTCTCTGTAGAGCATGCTGCACCCGTGTCGCACAGCAGCCACGGGACGT  
 TATAGATGCCCTCGAGGTAATTCCTGAGGTCCACCCTTGTCATTTCCATGGGGATCCGA  
 ACTGCACGGTGTCTCGGGCTGGGCCACACCGGGCCGACACAGCTGAATGAAAAAGTTGT  
 TCCGGACACCCGAATTGGGGCCACCCACCGTACAGGGGTACACACATTCCGCGCCA  
 TGGTGGACACGCCGCTTCCGGGGCTCTGCGGAATTCGGGCCCTAAATGATTCTGA  
 TTCCAAATTCTGACGTTACTAAACAAACCTGCTTATTAAACCTCCCCGACACCCCTAC  
 GCCCTTTTGGCTAACGGGGGGGTATACCACTTTGAAAACCCCGTGATTGGGGGCCA  
 AACACCTCCCTCGCGCCATGGGGGAACTTGAACCCGGGACACACCTTTACG  
 CCCTGTGGGTTGCCACCGCACCCATGGAAGCCACCCACCTAAGTTCCGCCAAGAAA  
 ATCCCAGGGTTTACGGCAACCCAGCGCCTTTCCCTTGTCAAAGGGCGCTGCCTC  
 ACCT

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_021134

**Insert Size:**

730 bp

**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:**

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\\_021134.2](#), [NP\\_066957.2](#)

**RefSeq Size:** 701 bp

**RefSeq ORF:** 462 bp

**Locus ID:** 6150

**UniProt ID:** [Q16540](#)

**Cytogenetics:** 11p15.5

**Protein Families:** Druggable Genome

**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. The gene is biallelically expressed, despite its location within a region of imprinted genes on chromosome 11. [provided by RefSeq, Jul 2008]