

## Product datasheet for **SC317497**

### MRPL1 (NM\_020236) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Tag:	Tag Free
Symbol:	MRPL1
Synonyms:	BM022; LIMT; MRP-LI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC317497 representing NM_020236. Blue=Insert sequence Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCGGGCGCCGTAAGGTGCATGGGTAGAGCCTTGATACATCATCAAAGGCATAGCCTTTCCAAGATG
GTTTATCAGACATCACTTTGTTCTTGTCTGTAACATCCGAGTGCCCAACAGACATTTTGTGCTGCT
ACAAAGTCTGCAAAGAAAAAAGGTGCTAAAGAAAAACACCAGATGAGAAAAAGATGAAATA
GAAAAATAAAGCATATCCCTATATGGAAGGCGAACCTGAGGATGATGTCTATTTAAACGCTTATAC
CCGAGACAGATATATGAGGTGGAGAAAGCTGTTCACTTACTTAAGAAATTTCAAATCTTGACTTTACT
AGTCCAAAGCAAAGTGTTTATCTTGATTTGACACTGGATATGGCACTGGGAAAGAAAGAAAAACGTGGAG
CCATTTACCAGTGTTCTTAGTTTGCCATACCCATTTGCTTCCGAAATCAATAAAGTTGCTGTATTACA
GAGAATGCATCAGAGGTCAAAATAGCGGAAGAAATGGAGCTGCATTTGCAGGAGGCACTAGTCTGATA
CAGAAGATTTGGGATGATGAAATTGTTGCAGACTTTTACGTAGCTGTTCCAGAAATAATGCCTGAACCT
AATCGATTAAGGAAGAACTGAATAAAAAATATCCAAAGCTTTCTCGAAATTCATTGGCCGTGACATC
CCCAAAATGCTTGAATTATTTAAAAATGGACATGAAATTAAGGTAGATGAAGAAAGGAGAACTTCTC
CAGACCAAAATAGCAACATTGGATATGTCAAGTGACCAGATAGCTGCCAATCTGCAAGCAGTTATTAAT
GAAGTTTGTAGGCACAGACCGCTGAATTTGGGTCCCTTTGTGGTACGTGCTTTCCTTCGTAGTTCAACA
AGTGAAGTTTATTACTGAAGATTGATCCATTGTTGCCTAAAGAAGTAAAAATGAAGAAAGTAAAAA
GAAGATGCCCTAA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGCGCCGCG
```

Restriction Sites:	SgfI-MluI
ACCN:	NM_020236



<b>Insert Size:</b>	978 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u><a href="#">NM_020236.3</a></u>
<b>RefSeq Size:</b>	1377 bp
<b>RefSeq ORF:</b>	978 bp
<b>Locus ID:</b>	65008
<b>UniProt ID:</b>	<u><a href="#">Q9BYD6</a></u>
<b>Cytogenetics:</b>	4q21.1
<b>Domains:</b>	Ribosomal_L1
<b>MW:</b>	36.9 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 that belongs to the L1 ribosomal protein family. [provided by RefSeq, Jul 2008]