

## Product datasheet for **SC120204**

### MRPL53 (NM\_053050) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MRPL53 (NM_053050) Human Untagged Clone
Tag:	Tag Free
Symbol:	MRPL53
Synonyms:	L53MT
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC120204 sequence for NM_053050 edited (data generated by NextGen Sequencing) ATGGCAGCTGCCTTGGCTCGGCTTGGTCTGCGGCCTGTCAAACAGGTTCCGGTTCAGTTC TGTCCCTTCGAGAAAAACGTGGAATCGACGAGGACCTTCCTGCAGACGGTGAGCAGTGAG AAGGTCCGCTCCACTAATCTCAACTGCTCAGTGATTGCGGACGTGAGGCATGACGGCTCC GAGCCCTGCGTGGACGTGCTGTTTCGGAGACGGGCATCGCCTGATTATGCGCGGCGCTCAT CTCACCGCTCTGGAAATGCTCACCGCCTTCGCCTCCCACATCCGGGCCAGGGACGCGGCG GGCAGCGGGGACAAGCCGGGCGCTGATACTGGTCGCTGA

Clone variation with respect to NM\_053050.4



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_053050 unedited AGGATATTTGTATACGACTCACTTATAGGGCGGCCGGAATTCGCACGAGGCATGGCAGC TGCCTTGGCTCGGCTTGGTCTGCGGCCTGTCAAACAGGTTTCGGGTTTCAGTTCTGTCCCTT CGAGAAAAACGTGGAATCGACGAGGACCTTCTGCAGACGGTGAGCAGTGAGAAGGTCCG CTCCACTAATCTCAACTGCTCAGTGATTGCGGACGTGAGGCATGACGGCTCCGAGCCCTG CGTGGACGTGCTGTTTCGGAGACGGGCATCGCCTGATTATGCGCGGCGCTCATCTCACCGC TCTGGAAATGCTCACCGCCTTCGCCTCCACATCCGGGCCAGGGACGCGGCGGGCAGCGG GGACAAGCCGGGCGTGATACTGGTCGCTGACAGCGCCAAAGAGACCAACAAGATGATTT TAGCGTGGACTAGGACACTTAACCTAAGAAGAGTTTCACTTAATCATTCAAATCACTATC TGAAGGGTCACGGAGCGCAAAATAAAGTTTAAACCCTGCTAAAAAAAAAAAAAAAAAAAC TCGACTTAGATTGCGGCCGCGGTTCATAGCTGTTTCTGAACAGATCCCGGGTGGCATCC CTGTGACCCCTCCCAGTGCCTCTCCTGGCCCTGGAAGTTGCCACTCCAGTGCCACCAG CCTTGTCTAATAAAAATTAAGTTGCATCATTTTGTCTGACTAGGTGTCCTTCTATATATT ATGGGGTGGAGGGGGATGTATGGAGCAAGGGGAAGTTNGAAGACAACCTGTAGGGCC TGCGGGTCTATTGGACCAAGCTGGATGCAGGGCACAATCTTGGCCACTGAATCTCCGC CTCTGGTTCAGCGATCTCTGCCTACCTCCGAGTGTGGATTGAGCTTGCTGACAGGTCA CTATTTTGTTTTGGAGAAACGGTTCACCTATGCCAGCTGCCN
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_053050
<b>Insert Size:</b>	1460 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>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>RefSeq:</b>	<u><a href="#">NM_053050.2</a></u> , <u><a href="#">NP_444278.1</a></u>
<b>RefSeq Size:</b>	632 bp
<b>RefSeq ORF:</b>	339 bp
<b>Locus ID:</b>	116540
<b>UniProt ID:</b>	<u><a href="#">Q96EL3</a></u>
<b>Cytogenetics:</b>	2p13.1

**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. A pseudogene corresponding to this gene is found on chromosome 1p. [provided by RefSeq, Jul 2008]