

## **Product datasheet for SC320942**

## MRPS31 (NM 005830) Human Untagged Clone

## **Product data:**

**Product Type:** Expression Plasmids

Product Name: MRPS31 (NM\_005830) Human Untagged Clone

Tag: Tag Free Symbol: MRPS31

Synonyms: IMOGN38; MRP-S31; S31mt

Mammalian Cell Neo

Selection:

Neomycin

Vector:pCMV6-AC (PS100020)E. coli Selection:Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM\_005830.2

GGGGATTTTCAGTTGTTCTTGGTTCATTTCGTGTCTCGGCGATGTTTCCTAGAGTCTC GACGTTCCTACCTCTTCGCCCCCTTTCCCGCCACCCTTTGTCCTCTGGAAGCCCGGAGAC ATCAGCGGCTGCGATTATGCTACTCACTGTTCGGCACGGAACAGTCAGGTACCGCAGTTC AGCGCTGTTGGCCCGGACAAAAAATAACATCCAAAGATATTTTGGCACTAACAGTGTGAT CTGTAGCAAGAAAGATAAGCAGTCTGTTCGAACTGAGGAGATTTCCAAGGAGACTTCAGA GAGCCAAGACAGTGAAAAGGAAAATACGAAAAAAGACTTGTTAGGCATTATTAAGGGCAT GAAAGTTGAATTAAGCACAGTAAATGTACGAACAACAAAGCCCCCCAAAAGAAGACCACT TAAAAGTTTGGAAGCTGCACTTGGCAGGCTTCGAAGAGCTACAGAATATGCTCCAAAGAA GAGAATTGAGCCCCTGAGTCCTGAGTTGGTGGCAGCTGCATCTGCTGTGGCAGATTCTCT CCCTTTTGATAAGCAAACAACCAAGTCAGAGCTGCTGAGCCAGCTCCAGCAGCATGAGGA AGAGTCAAGGGCACAGAGAGATGCAAAGCGACCTAAAATTAGTTTCAGTAACATAATATC TCAGTTTGATGAAGGCTATGACAATTATCCTGGCCAGGAGAAGACGGATGATCTTAAAAA AAGGAAAAATATATTCACAGGGAAAAGACTTAATATTTTTGACATGATGGCAGTTACTAA AGAAGCACCTGAAACAGACACATCACCTTCACTTTGGGATGTGGAATTTGCTAAGCAGTT AGCCACAGTAAATGAACAACCCCTTCAGAATGGATTTGAAGAGCTGATCCAGTGGACAAA AGAGGGGAAACTATGGGAGTTCCCAATTAACAATGAAGCAGGTTTTGATGATGATGGTTC AGAATTTCATGAACATATATTTCTGGAGAAACACCTGGAGAGCTTTCCAAAACAAGGACC AATTCGCCACTTCATGGAGCTGGTGACTTGTGGCCTTTCCAAAAACCCATATCTTAGTGT TAAACAGAAGGTTGAACACATAGAGTGGTTTAGAAATTATTTTAATGAAAAAAAGGATAT TCTAAAAGAAAGTAACATACAGTTCAATTAAGACCATGGAAATTTTTATTTCAAACAATT 

AAAAAAA

**Restriction Sites:** Please inquire



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**ACCN:** NM\_005830

**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).

**OTI Annotation:** 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.

**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.

**RefSeg:** NM 005830.2, NP 005821.1

 RefSeq Size:
 1284 bp

 RefSeq ORF:
 1188 bp

 Locus ID:
 10240

 UniProt ID:
 Q92665

 Cytogenetics:
 13q14.11

**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. The 28S subunit of the mammalian mitoribosome may play a crucial and characteristic role in translation initiation. This gene

encodes a 28S subunit protein that has also been associated with type 1 diabetes; however, its relationship to the etiology of this disease remains to be clarified. Pseudogenes

corresponding to this gene have been found on chromosomes 3 and 13. [provided by RefSeq,

Jul 2008]