

## Product datasheet for SC319219

### MRPS2 (NM\_016034) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MRPS2 (NM\_016034) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** MRPS2  
**Synonyms:** CGI-91; COXPD36; MRP-S2; S2mt  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC (PS100020)  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_016034.2  
 GCCCCGCGTCCCAGCCATGGCGACATCCTCGGCCGCGCTGCCCGAATACTGGCGCGGG  
 TGCCCGGGCCCCGTCGCGCTGGTTGGGCTTTCTCGGGAAGGCGACCCCCGGCCTGCTCG  
 GCCGAGCCGACAGGACGCTTGAAGCGCGACGGCCCTTATGATCCGCGAGTCGGAGGACAG  
 CACCGATTTCAACGACAAGATTTGAATGAGCCCTCAAGCACTCTGACTTCTTCAATGT  
 CAAGGAACTGTTTTCCGTGAGAAGCCTCTTCGATGCCCGAGTCCATCTGGGACACAAAGC  
 TGGCTGTGCGCACAGGTTTATGGAGCCGTACATCTTTGGGAGCCGCTGGACCACGACAT  
 CATCGACTGGAACAGACAGCCACGCACCTCCAGCTGGCCTTGAACCTCACCGCCACAT  
 GGCCTACCGCAAGGGCATCATCTGTTTATAAGCCGAACCGGCAGTTCTCGTACCTGAT  
 TGAGAACATGGCCCGTACTGTGGCGAGTACGCCACACTCGCTACTTCAGGGGCGGCAT  
 GCTGACCAACGCGCGCCTCCTCTTTGGCCCCACGGTCCGCTGCCGGACCTCATCATCTT  
 CCTGCACACGCTCAACAACATCTTTGAGCCACAGTGGCCGTGAGAGACGACGCCAAGAT  
 GAACATCCCCACAGTGGGCATCGTGGACACCAACTGCAACCCCTGCCTCATCACCTACCC  
 TGTACCCGGCAATGACGACTCTCCGCTGGCTGTGCACCTCTACTGCAAGGCTCTTCCAGAC  
 GGCCATCACCCGGGCCAAGGAGAAGCGGCAGCAGGTTGAGGCTCTCTATCGCCTGCAGGG  
 CCAGAAGGAGCCCGGGACCAGGGGCCAGCCACCCTCCTGGGGCTGACATGAGCCATTC  
 CCTGTGATGTTCACTCTCCTCCCAAAGCAAACACAGCCAAGCCTGTCTGAGCTGGGAGT  
 CCCCTTCCCAGCCCTGGGTGAGCGGCATCCTCAGTCGTTGTTACTTACTCAGCTGATGT  
 CACAGTGCAGACATCCACCGTTCCACCACAGAACCAGTGGCTGAGCGGACCAACGTTGCC  
 ATGTGCGTTTGCTCTGTGGGGAACAGACAGACAGAGGGTGAGCGACATGTGCAGAACGGCC  
 CCTTGGCTGCAGTTAGGACCTCAGTGGCTGGTATGGCCGAGCTGCTAGAAGATGCTGCTG  
 TCCCTGTGATCCCAGCAGCCCTCCCTTACCCTGACCCCTGACCTTTGTCAGGAAGGTGC  
 AGTTTTTCTTCTCAATCTAAATGCCTTTCAGGTGGGCGCTTCTTGGCTACCTGGTTCC  
 AGGGGGCTGTTTTGTAATGAGATGCTGCTGGCAGGCCACTCAGAGGCTCCCAGCTGGGTT  
 GGTGGGACAGCCAGGCCAGATGACCTGATTCCAGCAAAAATAAAACTCAGATTTGGGCAA  
 AATGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAC



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<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_016034
<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>RefSeq:</b>	<u><a href="#">NM_016034.2</a></u> , <u><a href="#">NP_057118.1</a></u>
<b>RefSeq Size:</b>	1434 bp
<b>RefSeq ORF:</b>	891 bp
<b>Locus ID:</b>	51116
<b>UniProt ID:</b>	<u><a href="#">Q9Y399</a></u>
<b>Cytogenetics:</b>	9q34.3
<b>Domains:</b>	Ribosomal_S2

**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 28S subunit protein that belongs to the ribosomal protein S2 family. Alternatively spliced transcript variants have been observed for this gene. [provided by RefSeq, May 2012]

**Transcript Variant:** This variant (1) represents the shortest transcript and is protein-coding.  
**Sequence Note:** A downstream translational start codon is selected for this RefSeq based on its better conservation in mammalian species, a strong Kozak signal and on the presence of a predicted mitochondrial targeting sequence in the protein N-terminus. An upstream in-frame start codon is also present but has a weaker Kozak signal and is poorly conserved, and use of the upstream start codon would result in a protein that is 23 aa longer at the N-terminus and lacks a predicted mitochondrial targeting sequence. Leaky scanning by ribosomes may allow translation initiation at the downstream start codon.