# MRPL19 siRNA – 39s Ribosomal Protein L19, Mitochondrial (Human)

## PRODUCT OVERVIEW

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| **Product Name** | MRPL19, siRNA |
| **Full Product Name** | MRPL19 siRNA (Human) |
| **Product Gene Name** | MRPL19 sirna |
| **Product Synonym Names** | KIAA0104; MRPL15; 39S ribosomal protein L19 mitochondrial; L19mt; MRP-L19; 39S ribosomal protein L15 mitochondrial; L15mt; MRP-L15 |
| **Host** | Synthetic |
| **Species Reactivity** | Human |
| **Form/Format** | Lyophilized powder |
| **Purity/Purification** | > 97% |
| **Specificity** | MRPL19 siRNA (Human) is a target-specific 19-23 nt siRNA oligo duplexes designed to knock down gene expression. |
| **Preparation and Storage** | Shipped at 4 degree C. Store at -20 degree C for one year. |
| **Molecular Weight** | 33,535 Da |
| **OMIM** | 611832 |
| **3D Structure** | ModBase 3D Structure for P49406 |
| **Negative Control** | siRNA Negative Control (Catalog# MBS8241404) is a non-targeting 21 nt siRNA recommended as a negative control for experiments using targeted siRNA transfection. |
| **Quality Control** | Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid phase extraction. The annealed RNA duplex is further analyzed by mass spectrometry to verify the exact composition of the duplex. Each lot is compared to the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency. |
| **Directions for Use** | We recommends transfection with 100 nM siRNA 48 to 72 hours prior to cell lysis. Before resuspending, briefly centrifuge the tube to ensure the lyophilized siRNA is at the bottom of the tube. Resuspend the siRNA oligos to an appropriate concentration with DEPC water. For each vial, suitable for 250 transfections in 24 well plate (20 pmol for each well). |
| **Components** | We offer pre-designed sets of 3 different target-specific siRNA oligo duplexes of human MRPL19 gene. Each vial contains 5 nmol of lyophilized siRNA. The duplexes can be transfected individually or pooled together to achieve knockdown of the target gene, which is most commonly assessed by qPCR or western blot. Our siRNA oligos are also chemically modified (2'-OMe) at no extra charge for increased stability and enhanced knockdown in vitro and in vivo. |
| **Applications Tested/Suitable for MRPL19 sirna** | RNA Interference (RNAi) |
| **Related Product Information for MRPL19 sirna** | MBS8202622 is an siRNA targeting MRPL19. Also known as MRPL19 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit MRPL19 expression using RNA interference |
| **Other Notes** | Small volumes of MRPL19 sirna vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MRPL19. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 94557305 |
| **NCBI GeneID** | 9801 |
| **NCBI Accession #** | NP_055578.2 |
| **UniProt Primary Accession #** | P49406 |
| **UniProt Secondary Accession #** | Q53TX9; Q96Q52 |
| **UniProt Related Accession #** | P49406 |
| **GenBank Nucleotide #** | NM_014763.3 |
| **NCBI Official Full Name** | 39S ribosomal protein L19, mitochondrial |
| **NCBI Official Synonym Full Names** | mitochondrial ribosomal protein L19 |
| **NCBI Official Symbol** | MRPL19 |
| **NCBI Official Synonym Symbols** | RLX1; L19mt; MRPL15; RPML15; MRP-L15; MRP-L19 |
| **UniProt Protein Name** | 39S ribosomal protein L19, mitochondrial |
| **UniProt Synonym Protein Names** | 39S ribosomal protein L15, mitochondrial; L15mt; MRP-L15 |
| **Protein Family** | 39S ribosomal protein |
| **UniProt Gene Name** | MRPL19 |
| **UniProt Synonym Gene Names** | KIAA0104; MRPL15; L19mt; MRP-L19; L15mt; MRP-L15 |
| **UniProt Entry Name** | RM19_HUMAN |
| **NCBI Protein Information** | 39S ribosomal protein L19, mitochondrial |
| **NCBI Summary for MRPL19** | 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. [provided by RefSeq, Jul 2008] |
| **UniProt Comments for MRPL19** | MRPL19: a mitochondrial ribosomal protein encoded by a nuclear gene that helps 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. [provided by RefSeq, Jul 2008]<br><br>Protein type: Translation; Ribosomal; Mitochondrial<br><br>Chromosomal Location of Human Ortholog: 2p11.1-q11.2<br><br>Cellular Component: nuclear membrane; mitochondrial inner membrane; ribosome; nucleus<br><br>Molecular Function: structural constituent of ribosome<br><br>Biological Process: mitochondrial translation; organelle organization and biogenesis |
| **Research Articles on MRPL19** | **1.** study failed to show any association of MRPL19 SNPs with developmental dyslexia in an Indian population. |

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