

Product datasheet for SC301980

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

MRPL22 (NM_001014990) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: MRPL22 (NM_001014990) Human Untagged Clone

Tag: Tag Free Symbol: MRPL22

Synonyms: HSPC158; L22mt; MRP-L22; MRP-L25; RPML25

Vector: pCMV6 series

Fully Sequenced ORF: >NCBI ORF sequence for NM_001014990, the custom clone sequence may differ by one or

more nucleotides

ACCATCGTTCACACTCTATGA

Restriction Sites: Please inquire ACCN: NM_001014990

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.

RefSeq: <u>NM 001014990.1</u>, <u>NP 001014990.1</u>

RefSeq Size: 616 bp

RefSeq ORF: 381 bp

Locus ID: 29093

UniProt ID: Q9NWU5

Cytogenetics: 5q33.2

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 L22 ribosomal protein family. A pseudogene corresponding to this gene is found on chromosome 4q. Two transcript variants encoding different isoforms have been

found for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) lacks an alternate coding exon compared to variant 1. The resulting isoform (b) is shorter at the N-terminus compared to isoform a. Sequence Note: The RefSeq transcript and protein were derived from transcript and genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.