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Product datasheet for SC125003

MRPS21 (NM_031901) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Tag Free
Symbol:	MRPS21
Synonyms:	MDS016; MRP-S21; RPMS21
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC125003 sequence for NM_031901 edited (data generated by NextGen Sequencing)
ATGGCAAAACATCTGAAGTTCATCGCCAGGACTGTGATGGTACAGGAAGGGAACGTGGAA
AGCGCATACAGGACCCTAAACAGAATCCTCACTATGGATGGGCTCATTGAGGACATTAAG
CATCGGCGGTATTATGAGAAGCCATGCCGCCGGCGACAGAGGGAAAGCTATGAAAGGTGC
CGGCGGATCTACAACATGGAAATGGCTCGCAAGATCAACTTCTTGATGCGAAAGAATCGG
GCAGATCCGTGGCAGGGCTGCTGA

Clone variation with respect to NM_031901.4

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_031901 unedited
GGGGTCACAATTGTATACGACTCATATAGGCGGCCGCGAAATTCGCACGAGGGTGGGCTA
GGTACTGAGCGCGCGAGGCTCTACAGAGTGAAGGTTTAAATCCAAGGTCATGGCAAAACA
TCTGAAGTTCATCGCCAGGACTGTGATGGTACAGGAAGGGAACGTGGAAAGCGCATACAG
GACCCTAAACAGAATCCTCACTATGGATGGGCTCATTGAGGACATTAAGCATCGGCGGTA
TTATGAGAAGCCATGCCGCCGGCGACAGAGGGAAAGCTATGAAAGGTGCCGGCGGATCTA
CAACATGGAAATGGCTCGCAAGATCAACTTCTTGATGCGAAAGAATCGGGCAGATCCGTG
GCAGGGCTGCTGAGGCCTGTGGGTGGGACACCCAGTGCGAAACCCTCATCCAGTTTTCTC
TCCATCTCTTTTCTTTGTACAATCCCATTTCCTATTACCATTCTCTGCAATAAACTCAAA
TCACATGTCTGCAAAAAAAAAAAAAAAAAAAAACTCGACTCTAGATTGCGGCCGCGGTCAT
AGCTGTTTCCTGAACAGATCCCGGGTGGCATCCCTGTGACCCCTCCCCAGTGCCTCTCCT
GGCCCTGGAAGTTGCCACTCCAGTGCCCACCAGCCTTGTCCTAATAAAATTAAGTTGCAT
CATTTTGTCTGACTAGGTGTCCTTCTATATATTATGGGGTGGAGGGGGTGGTATGGAGCA
AGGGGCAAGTTGGGAAGACACCTGTAGGCCCTGNCGGGTCTATTGGGAACCAAGCTGGAT
GCAGTGGCACAATCTTGCTCACTGNCATCTCGNCTNCTGGGTTCAGCGATTTNCTGCCTC
ACCTCCCGAGTGTTTGGATCCAGGCATGCATGACCAGCTCACTAATTTTGTTTTTGGTAG
AGACGGGTTTACCATATTGNCAGC

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3' Read Nucleotide Sequence:

>OriGene 3' read for NM_031901 unedited
NGGNTACACTATGNNACCGCGGCCGCAATCTANGATCGAGTTTTTTTTTTTTTTTTTTT
GCAGACATGTGATTTGAGTTTATTGCAGAGAATGGTAATAGGAAATGGGATTGTACAAAG
AAAAGAGATGGAGAGAAAACTGGATGAGGGTTTCGCACTGGGTGTCCCACCCACAGGCCT
CAGCAGCCCTGCCACGGATCTGCCCGATTCTTTCGCATCAAGAAGTTGATCTTGCGAGCC
ATTTCCATGTTGTAGATCCGCCGGCACCTTTCATAGCTTTCCCTCTGTCGCCGGCGGCAT
GGCTTCTCATAATACCGCCGATGCTTAATGTCCTCAATGAGCCCATCCATAGTGAGGATT
CTGTTTAGGGTCCTGTATGCGCTTTCCACGTTCCCTTCCTGTACCATCACAGTCCTGGCG
ATGAACTTCAGATGTTTTGCCATGACCTTGGATTTAAACCTTCACTCTGTAGAGCCTCGC
GCGCTCAGTACCTAGCCCACCCTCGTGCCGAATTCGCGGCCGCCCTATAGTGAGTCGTAT
TACAAAATTCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCCACCGTACACG
CCTACCGCCCATTTGCGTCAACGGGGCGGGGTTATTACGACATTTTGGAAAGTCCCGTTG
ATTTTGGTGCCAAAACAAACTCCCATTGACGTCAATGGGGNTGGAGACTTGNAAATCCCC
GTGAGTCAAACCGCTATCCACGCCCATTGGNTGTACTGNCCAAACCGCATCACCATGGTA
ATAGCGATGACTAATACCTANATGTACTGCCCAGTANGAAAGTCCCGTAAAGTCATGTAC
TGGGCATTATGCCAGGCGGGCCCATTACCGTCATTGACGTCAATAAGGGGCGGACTGGGC
ATATGAACACTTGC

Restriction Sites: NotI-NotI

ACCN: NM_031901

Insert Size: 600 bp

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).

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_031901.3, NP_114107.1

RefSeq Size: 483 bp

RefSeq ORF: 264 bp

Locus ID: 54460

UniProt ID: P82921

Cytogenetics: 1q21.2

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 28S subunit protein that belongs to the ribosomal protein S21P family. Pseudogenes corresponding to this gene are found on chromosomes 1p, 1q, 9p, 10p, 10q, 16q, and 17q. Available sequence data analyses identified splice variants that differ in the 5' UTR; both transcripts encode the same protein. [provided by RefSeq, Jul 2008]
Transcript Variant: This variant (1) is the predominant transcript. Variants 1 and 2 both encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.