

Product datasheet for **RG222833**

MRPS33 (NM_053035) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MRPS33 (NM_053035) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: MRPS33
Synonyms: CGI-139; MRP-S33; PTD003; S33mt
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG222833 representing NM_053035
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTCCTCCCTTTCAGAATATGCCTTCCGCATGTCTCGTCTCAGTGCCCGGCTATTTGGTGAAGTCACCA
 GGCCTACTAATCCAAGTCTATGAAAGTGGTGAACTGTTTAGTGAAGTGCCTTGCCCAAGAAGAAGGA
 GACTTATGATTGGTATCCAAATCACCACACTTACGCTGAAGTATGCAGACGCTCCGATTTCTTGACTC
 TACAGAGATGAGCATCAGGATTTTATGGATGAGCAAAAACGACTAAAGAAGCTTCGTGGAAGGAGAAAC
 CAAAGAAAGGAGAAGGAAAAGAGCAGCAAAAAGGAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG222833 representing NM_053035
 Red=Cloning site Green=Tags(s)
 MSSLSSEYAFRMSRLSARLFGEVTRPTNSKSMKVVKLFSELPLAKKKETYDWYPNHHHTYAELMQTLRFLGL
 YRDEHQDFMDEQKRLKKLRGKEPKKGEGKRAAKRK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_053035

ORF Size: 318 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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: [NM_053035.3](#)

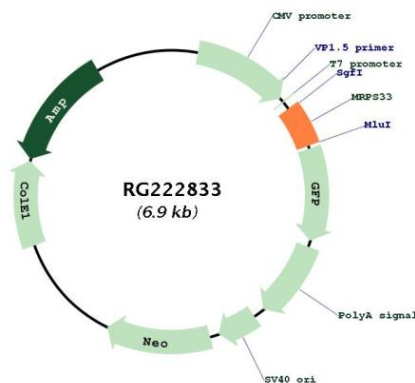
RefSeq Size: 653 bp

RefSeq ORF: 321 bp

Locus ID: 51650
 UniProt ID: [Q9Y291](#)
 Cytogenetics: 7q34
 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 is one of the more highly conserved mitochondrial ribosomal proteins among mammals, *Drosophila* and *C. elegans*. Splice variants that differ in the 5' UTR have been found for this gene; all variants encode the same protein. Pseudogenes corresponding to this gene are found on chromosomes 1q, 4p, 4q, and 20q [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG222833