

Product datasheet for **RG205613**

MRPS31 (NM_005830) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	MRPS31
Synonyms:	IMOGN38; MRP-S31; S31mt
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG205613 representing NM_005830
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTTCCTAGAGTCTCGACGTTCTACCTCTTCGCCCTTTCCCGCCACCCTTTGTCTCTGGAAGCC
CGGAGACATCAGCGGCTGCGATTATGCTACTCACTGTTCCGGCACGGAACAGTCAGGTACCGCAGTTCAGC
GCTGTTGGCCCGGACAAAAAATCAATCCAAGATATTTTGGCACTAACAGTGTGATCTGTAGCAAGAAA
GATAAGCAGTCTGTTGCACTGAGGAGATTTCCAAGGAGACTTCAGAGAGCCAAGACAGTGAAGAGGAAA
ATACGAAAAAAGACTTGTAGGCATTATTAAGGGCATGAAAGTTGAATTAAGCACAGTAAATGTACGAAC
AACAAAGCCCCCAAGAGACCACTTAAAGTTTGGAAGCTGCACTTGGCAGGCTTCAAGAGCTACA
GAATATGCTCCAAGAAGAGAATTGAGCCCTGAGTCTGAGTTGGTGGCAGCTGCATCTGCTGTGGCAG
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GCCAGATCTGCTACAGCTAGAGTTCGTTCAAGACCAGAGCTTCGGATTCAAGTTGATGAAGGCTATGACA
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GAATTTGCTAAGCAGTTAGCCACAGTAAATGAACAACCCCTTCAGAATGGATTTGAAGAGCTGATCCAGT
GGACAAAAGAGGGGAACTATGGGAGTTCCCAATTAACAATGAAGCAGGTTTTGATGATGATGGTTGAGA
ATTTTCATGAACATATATTTCTGGAGAAACACCTGGAGAGCTTCCAAAACAAGGACCAATTCGCCACTTC
ATGGAGCTGGTGAATTTGGCCTTTCCAAAACCCATATCTTAGTGTTAAACAGAAGGTTGAACACATAG
AGTGGTTAGAAATATTTTAATGAAAAAAGGATATTCTAAAAGAAAGTAACATACAGTTCAAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAA



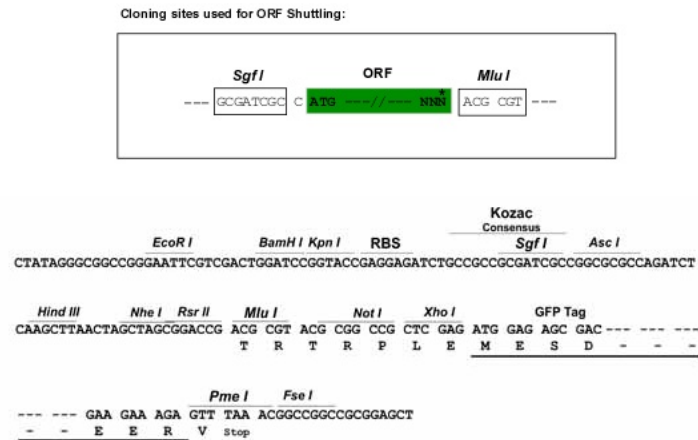
Protein Sequence: >RG205613 representing NM_005830
Red=Cloning site Green=Tags(s)

MFPRVSTFLPLRPLSRHPLSSGSPETSAAAIMLLTVRHGTVRYRSSALLARTKNNIQRYPFGTNSVICSKK
DKQSVRTEEISKETSESQDSEKENTKKDLLGIIKGMKVELSTVNVRTTKPPKRPLKSLEAALGRLRRAT
EYAPKKRIEPLSPELVAAASAVADSLPFDKQTTKSELLSQLQHEEESRAQRDAKRPKISFSNIIIDMKV
ARSATARVRSRPELRIQFDEGYDNYPGQEKTDLLKKRNIFTGKRLNIFDMMAVTKEAPETDTSPLWDV
EFAKQLATVNEQPLQNGFEELIQWTKEGKLEWEPINNEAGFDDGSEFHEHIFLEKHLESFPKQGPRIHF
MELVTCGLSKNPYLSVKQKVEHIEWFRNYFNEKKDILKESNIQFN

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005830

ORF Size: 1185 bp

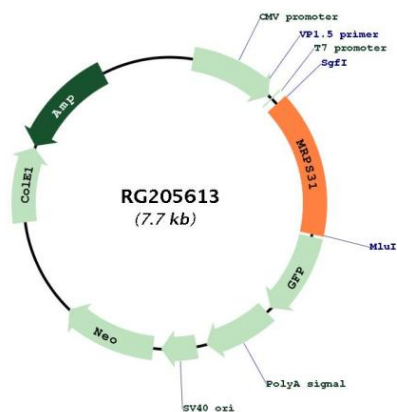
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_005830.2, NP_005821.1</u>
RefSeq Size:	1284 bp
RefSeq ORF:	1188 bp
Locus ID:	10240
UniProt ID:	<u>Q92665</u>
Cytogenetics:	13q14.11
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 has also been associated with type 1 diabetes; however, its relationship to the etiology of this disease remains to be clarified. Pseudogenes corresponding to this gene have been found on chromosomes 3 and 13. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG205613