

Product datasheet for **RG204413**

MRPL50 (NM_019051) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Tag: TurboGFP
Symbol: MRPL50
Synonyms: MRP-L50
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG204413 representing NM_019051
Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTGCACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCGCGATCTGTGTCGGGCATTACCAGAAGAGTCTTCATGTGGACAGTCTCAGGGACACCATGTA
GAGAATTTTGGTCTCGATTAGAAAAGAGAAAGAGCCAGTGGTTGTTGAGACAGTAGAAGAGAAAAAGGA
ACCTATCCTAGTGTGCCACCTTTACGAAGCCGAGCATACACACCACCTGAAGATCTCCAGAGTCGTTTG
GAATCTTACGTTAAGAAGTTTTGGTTCATCTCTCCTAGTAATTGGCAAGACATCTCCCTGGAAGATA
GTCGTCTAAAGTTCAATCTTGGCTCATTAGCTGATGACTTGGGTCATGTAGTCCCTAACTCCAGACT
CCACCAGATGTGCAGGTTAGAGATGTTTTGATTTCTATAATGTCCCTATTCAAGATAGATCTAAATTT
GATGAACCTAGTGCAGTAATCTGCCCCCAATTTGAAATCACTTGGAGTTAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG204413 representing NM_019051
Red=Cloning site Green=Tags(s)

MAARSVSGITRRVFMWTVSGTPCREFWSRFRKEKEPVVETVEEKEPIILVCPPLRSRAYTPPEDLQSR
ESYVKEVFGSSLPNWDISLEDSRLKFNLLAHLADDLGHVVPNSRLHQMCVRVDVDFYNVPIQDRSKF
DELSASNLPPNLKITWSY

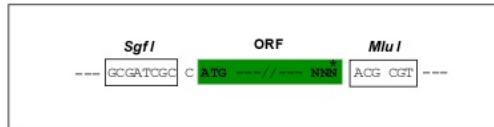
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



Cloning Scheme:

Cloning sites used for ORF Shuttling:



EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI
 CTATAGGGCGGCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGATCGCCGGCGCCAGATCT
 HindIII NheI RsrII MluI NotI XhoI GFP Tag
 CAAGCTTAAGTACTAGTAGCGGACG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC ---
 T R T R P L E M E S D - - -
 --- GAA GAA AGA GTT TAA ACGCCGGCCGCGGAGCT
 - - E E R V Stop

ACCN: NM_019051

ORF Size: 474 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: [NM_019051.1](#), [NP_061924.1](#)

RefSeq Size: 1027 bp

RefSeq ORF: 477 bp

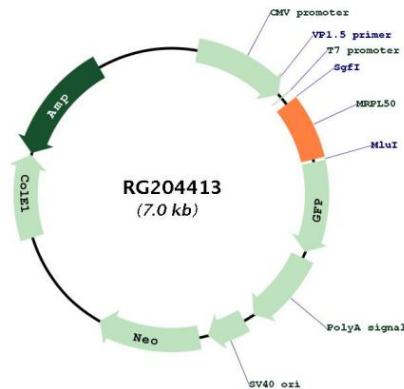
Locus ID: 54534

UniProt ID: [Q8N5N7](#)

Cytogenetics: 9q31.1

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 putative 39S subunit protein and belongs to the L47P ribosomal protein family. Pseudogenes corresponding to this gene are found on chromosomes 2p, 2q, 5p, and 10q. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG204413