

Product datasheet for **RG204772**

MRPL20 (NM_017971) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	MRPL20
Synonyms:	L20mt; MRP-L20
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG204772 representing NM_017971
Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTCTTCTCACCGCGCAGCTCTGGCTGCGGAATCGCGTCACCGACCGCTACTTTCGGATCCAGGAGG
TGCTGAAGCACGCCAGGCACTTCGGGGAAGGAAAAATCGCTGCTACAGGTTGGCGGTCAGAACCGTGAT
TCGAGCCTTTGTGAAATGCACCAAGCCCGATACCTGAAGAAAAAGAACATGAGGACCCTCTGGATTAAT
CGAATTACAGCTGCTAGCCAGGAACATGGACTGAAGTATCCAGCGCTCATTGGGAATTTAGTTAAGTGCC
AGGTGGAGCTCAACAGGAAAGTCCTAGCGGATCTGGCCATCTACGAGCCAAAGACTTTCAAATCTTTGGC
TGCCTTGGCCAGTAGGAGGCGACACGAAGGATTGCTGCTGCCTTGGGGATGGGAAGGAACCTGAAGGC
ATTTTTCCAGAGTGGTGCAGTACCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG204772 representing NM_017971
Red=Cloning site Green=Tags(s)

MVFLTAQLWLRNRVTDYFRIQEV LKHARHFRGRKNRCYRLAVRTVIRAFVKCTKARYLKKKNMRTLWIN
RITAASQEHGLKYPALIGNLVKQVELNRKVLADLAIYEPKTFKSLAALASRRRHGFAAALGDGKEPEG
IFSRVVQYH

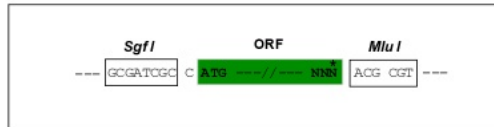
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



Cloning Scheme:

Cloning sites used for ORF Shutting:



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_017971

ORF Size: 447 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_017971.4](#)

RefSeq Size: 705 bp
 RefSeq ORF: 450 bp
 Locus ID: 55052

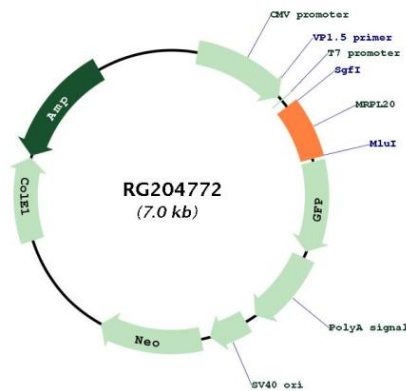
UniProt ID: [Q9BYC9](#)

Cytogenetics: 1p36.33

Domains: Ribosomal_L20

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. A pseudogene corresponding to this gene is found on chromosome 21q. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jan 2016]

Product images:



Circular map for RG204772