

Product datasheet for **RG220973**

MT (MCAT) (NM_014507) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MT (MCAT) (NM_014507) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: MT
Synonyms: fabD; FASN2C; MCT; MCT1; MT; NET62
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG220973 representing NM_014507
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAGCGTCCGGGTGCGACGGGTAGCGTGGGTGAGGGGCTTGGGCGCCAGCTACCGCCGGCGCCCTCGA
 GCTTCCCGGTGCCTCCGCCGGGGCCAGGGTGTAGCGGAGCTGCTGCGAGATGCGACCGGGGGCGGAGGA
 GGAGGCGCCCTGGGCGGCGACGGAGCGGCAATGCCGGGCCAGTGTCTCCGTGCTCTTCCCGGGCCAG
 GGCAGCCAGGTGGTGGGCATGGCCGCGGTCTGCTCAACTACCGCGCGTCCGCGAACTCTACGCCGCC
 CCCGCCGCGTGTGGGCTACGACCTGCTGGAAGTACGCTGCACGGGCCGAGGAGACCTGGACCGCAC
 CGTGCAGTGTGAGCCCGGATCTTCGTGGCATCGCTGGCCGCTGTCGAGAACTACATCACCTGCAGCCC
 TCGGTGATTGAGAACTGTGTTGCTGCTGGATTGAGTGTGGGAGATTTGCAGCCCTAGTGTGTTGCC
 GAGCCATGGAATTTGCTGAAGGCTCTACGGTTTCTCCAGAAGAATTCCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG220973 representing NM_014507
 Red=Cloning site Green=Tags(s)

MSVRVARVAWVRGLGASYRRGASSFPVPPPGAQGVAE LLRDATGAE EEPWAATERRMPGQCSVLLFPGQ
 GSQVVGMRG LLNYPRVRELYAAARRVLGYDLLELSLHGPQETLDR TVHCQPAIFVASLA AVEKLHHLQP
 SVIENCVAAGFSVGEFAALVFAGAMEFAEGSTVSPEEFL

TRTRPLE - GFP Tag - V

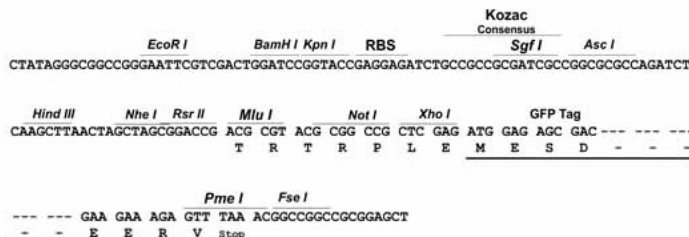
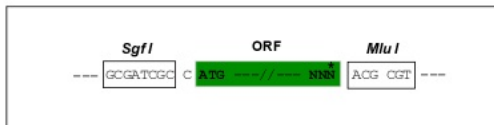
Restriction Sites: Sgfl-MluI



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Cloning Scheme:

Cloning sites used for ORF Shutting:


ACCN: NM_014507

ORF Size: 540 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_014507.3](#)
RefSeq Size: 1174 bp

RefSeq ORF: 543 bp

Locus ID: 27349

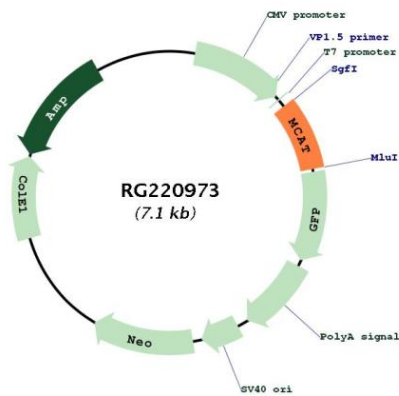
UniProt ID: [Q8IVS2](#)

Cytogenetics: 22q13.2

Protein Pathways: Fatty acid biosynthesis, Metabolic pathways

Gene Summary: The protein encoded by this gene is found exclusively in the mitochondrion, where it catalyzes the transfer of a malonyl group from malonyl-CoA to the mitochondrial acyl carrier protein. The encoded protein may be part of a fatty acid synthase complex that is more like the type II prokaryotic and plastid complexes rather than the type I human cytosolic complex. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Mar 2012]

Product images:



Circular map for RG220973