

## Product datasheet for **RG201972**

### **Methylmalonyl Coenzyme A mutase (MUT) (NM\_000255) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Methylmalonyl Coenzyme A mutase (MUT) (NM_000255) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Methylmalonyl Coenzyme A mutase
Synonyms:	MCM; MUT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RG201972 representing NM\_000255  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCCGCATCGCC

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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

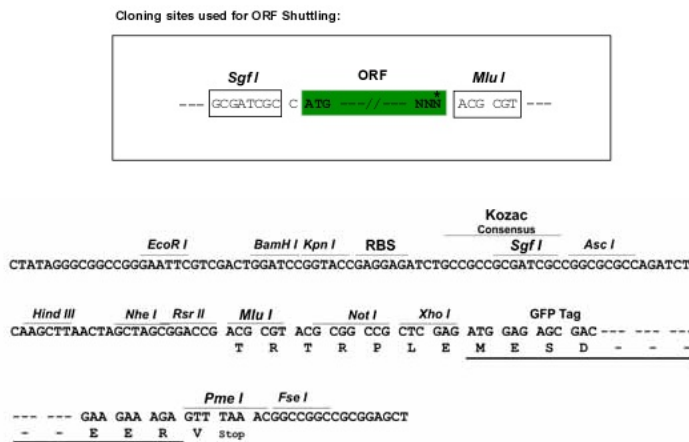
**Protein Sequence:** >RG201972 representing NM\_000255  
Red=Cloning site Green=Tags(s)

```
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CGGVIPPQDYEFLEFVGVSNVFGPGTRIPKAAVQVLLDDIEKCLEKKQQSV
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000255

**ORF Size:** 2250 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\\_000255.1](#), [NP\\_000246.1](#)

**RefSeq Size:** 2798 bp

**RefSeq ORF:** 2253 bp

**Locus ID:** 4594

**UniProt ID:** [P22033](#)

**Cytogenetics:** 6p12.3

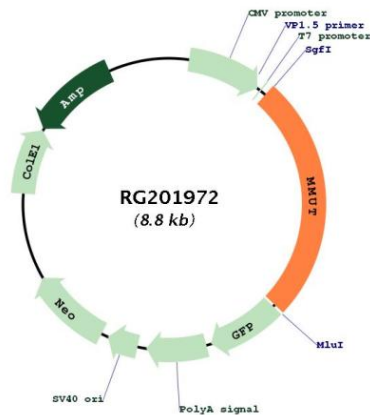
**Domains:** MM\_CoA\_mutase, B12-binding

**Protein Families:** Druggable Genome

**Protein Pathways:** Metabolic pathways, Propanoate metabolism, Valine, leucine and isoleucine degradation

**Gene Summary:** This gene encodes the mitochondrial enzyme methylmalonyl Coenzyme A mutase. In humans, the product of this gene is a vitamin B12-dependent enzyme which catalyzes the isomerization of methylmalonyl-CoA to succinyl-CoA, while in other species this enzyme may have different functions. Mutations in this gene may lead to various types of methylmalonic aciduria. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG201972