

## Product datasheet for **RG240049**

### MTR (NM\_001291939) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MTR (NM_001291939) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MTR
Synonyms:	cbIG; HMAG; MS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG240049 representing NM_001291939. Blue=ORF Red=Cloning site Green=Tag(s)

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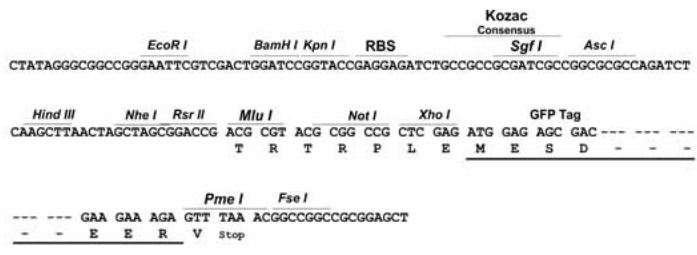
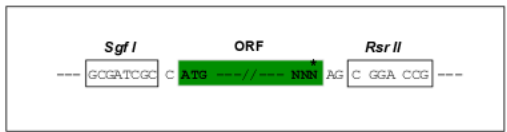
Protein Sequence: >Peptide sequence encoded by RG240049  
 Blue=ORF Red=Cloning site Green=Tag(s)

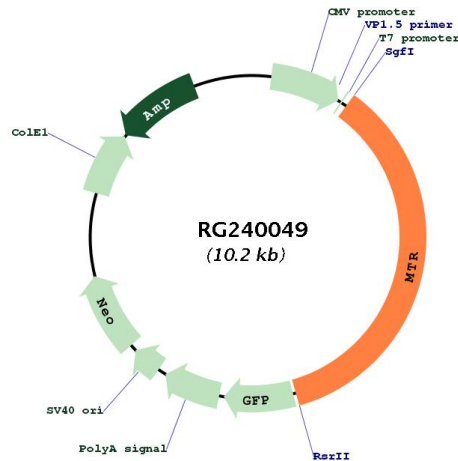
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Restriction Sites: SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



**Plasmid Map:**


<b>ACCN:</b>	NM_001291939
<b>ORF Size:</b>	3642 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>RefSeq:</b>	<a href="#">NM_001291939.1</a> , <a href="#">NP_001278868.1</a>
<b>RefSeq Size:</b>	10422 bp
<b>RefSeq ORF:</b>	3645 bp
<b>Locus ID:</b>	4548
<b>UniProt ID:</b>	<a href="#">Q99707</a>
<b>Cytogenetics:</b>	1q43
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Cysteine and methionine metabolism, Metabolic pathways, One carbon pool by folate
<b>MW:</b>	135.2 kDa

**Gene Summary:**

This gene encodes the 5-methyltetrahydrofolate-homocysteine methyltransferase. This enzyme, also known as cobalamin-dependent methionine synthase, catalyzes the final step in methionine biosynthesis. Mutations in MTR have been identified as the underlying cause of methylcobalamin deficiency complementation group G. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, May 2014]