

## Product datasheet for **RG204307**

### Aconitase 2 (ACO2) (NM\_001098) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Aconitase 2 (ACO2) (NM_001098) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACO2
Synonyms:	ACONM; HEL-S-284; ICRD; OCA8; OPA9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG204307 representing NM\_001098  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

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**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG204307 representing NM\_001098  
 Red=Cloning site Green=Tags(s)

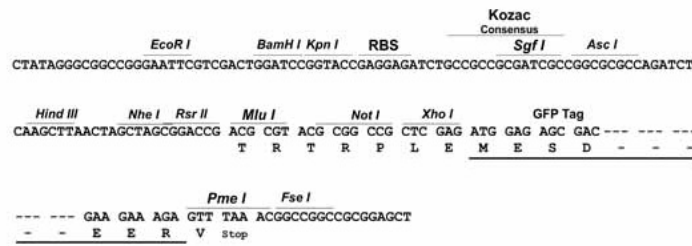
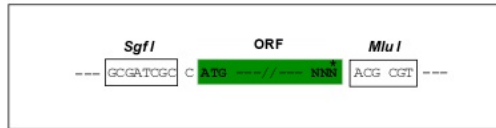
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SVRNAVTQEFGPVPD TARYYKKGIRWVVI G DENYEGSSREHAAL EPRHLGGRAIITKSFARIHETNLK
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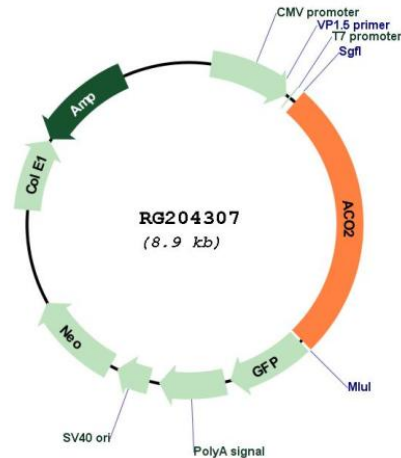
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**


**ACCN:** NM\_001098

**ORF Size:** 2340 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\\_001098.2](#), [NP\\_001089.1](#)

**RefSeq Size:** 2744 bp

**RefSeq ORF:** 2343 bp

**Locus ID:** 50

**UniProt ID:** [Q99798](#)

**Cytogenetics:** 22q13.2

<b>Domains:</b>	Aconitase_C, aconitase
<b>Protein Pathways:</b>	Citrate cycle (TCA cycle), Glyoxylate and dicarboxylate metabolism, Metabolic pathways
<b>Gene Summary:</b>	The protein encoded by this gene belongs to the aconitase/IPM isomerase family. It is an enzyme that catalyzes the interconversion of citrate to isocitrate via cis-aconitate in the second step of the TCA cycle. This protein is encoded in the nucleus and functions in the mitochondrion. It was found to be one of the mitochondrial matrix proteins that are preferentially degraded by the serine protease 15 (PRSS15), also known as Lon protease, after oxidative modification. [provided by RefSeq, Jul 2008]