

## Product datasheet for **RC207927**

### **FMO1 (NM\_002021) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	FMO1 (NM_002021) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FMO1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC207927 representing NM\_002021  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCAAGCGAGTTGCCATTGTGGGAGCTGGGGTTCAGCGCCTGGCCTCCATCAAGTGTCTGGAAG  
 AAGGACTGGAGCCACCTGCTTTGAGAGGAGCGATGACCTTGGGGGCTGTGGAGATTCACCGAACATGT  
 TGAAGAAGGCAGAGCCAGTCTCTACAAGTCTGTGGTTTCCAACAGCTGCAAGGAGATGTCTTGTACTCA  
 GACTTTCCATTCCAGAAGATTATCCAACTATGTGCCAAATTCTCAATTCCTGGAATATCTCAAAATGT  
 ATGCAAACCCTTTGACCTTCTGAAACACATTC AATTCAAGACCAAAGTCTGCAGTGAACAAAATGCTC  
 AGATTCTGCTGTCTGGCCAATGGGAGGTGGTCACTATGCATGAAGAGAAGCAAGAGTCAAGCCATCTTT  
 GATGCTGTGCTGCTGCACTGGCTTTCTACTAATCCTATTTGCCACTGGATTCCTTTCCAGGTATTA  
 ATGCCTTTAAAGGCCAGTACTTTTCATAGCCGGCAATATAAGCATCCAGATATATTTAAGGACAAGAGAGT  
 CCTTGTGATTGGAATGGGAAATTCTGGCACAGACATTGCTGTGGAGGCCAGCCACCTGGCGGAAAAGGTG  
 TTCTCAGCACCACCGGAGGGGGATGGGTGATCAGCCGAATCTTTGACTCGGGCTACCCATGGGACATGG  
 TGTTTCATGACACGCTTTCAGAACATGTTGAGAAATTCCTCCCAACCCCAATTGTGACTTGGTTGATGGA  
 GCGAAAGATAACAACACTGGCTCAATCATGCAAATTACGGCTTAATACCAGAAGACAGGACTCAGCTGAAA  
 GAGTTTGTGCTAAATGATGAGCTCCAGGACGCATCATCACTGGGAAAGTGTTCATCAGGCCAAGCATAA  
 AAGAGGTAAGGAAAACCTCTGTCATATTTAACAATACTTCAAAGGAAGAGCCTATTGACATCATTGTCTT  
 TGCCACTGGATACACATTTGCTTTCCCTTCTTATGATGAGTCTGTAGTAAAAGTTGAAGATGGCCAGGCC  
 TCACTGTACAAGTATATCTTCCCTGCACATCTGCAAAAGCCAACCCTGGCCATTATTGGCCTCATCAAAC  
 CCTTGGGCTCCATGATACCTACAGGAGAAACACAAGCTCGGTGGGCTGTTGAGTCTGAAAGGTGTA  
 TAAGTTACCACCACCAAGTGTGTCATGATAGAGGAAATTAATGCAAGGAAAGAAAACAAGCCAGTTGGTTT  
 GGCTTGTGCTACTGCAAGGCTTTACAATCAGATTATATCACATACATAGATGAACTCCTGACCTATATCA  
 ATGCAAAACCCAACTGTTCTCTATGCTCCTAACGGATCCACATCTGGCTCTGACCGTCTTCTTTGGCCC  
 ATGCTCACCATAACAGTTCGGCTTACTGGCCAGGAAAATGGGAAGGAGCCAGAAATGCCATCATGACC  
 CAGTGGGACCGAACATTC AAGGTCATCAAAGCTCGAGTTGTACAAGAGTCTCCATCTCCCTTTGAAAGTT  
 TTCTTAAAGTCTTAGCTTTCTGGCTTTGCTTGTGGCTATTTTTCTGATTTTCTA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC207927 representing NM\_002021  
 Red=Cloning site Green=Tags(s)

MAKRVAIVGAGVSGLASIKCCLEEGLEPTCFERSDDLGLLWRFTEHVEEGRASLYKSVVSNCKEMSCYS  
 DFPPFEDYPNYPNSQFLEYLKYANHFDLLKHIQFKTKVCSVTKCSDSAVSGQWEVVTMHEEKQESAIF  
 DAVMVCTGFLTNPYLPLDSFPGINAFKQYFHSRQYKHPDIFKDKRVLVIGMNSGTDI AVEASHLAEKV  
 FLSTTGGGWVISRIFDSGYPWDMVFMTRFQNMLRNSLPTPIVTWLMERKINNWLNHANYGLIPEDRTQLK  
 EFVLNDELPGRIITGKVFIRPSI KEVKENSIVFNNTSKEEPIDIIVFATGYTFAFPFLDES VVKVEDGQA  
 SLYKYIFPAHLQKPTLAIIGLIKPLGSMIPTGETQARWAVRVLKGVNKLPPPSVMIEEINARKENKPSWF  
 GLCYCKALQSDYITYIDELLTYINAKPNLFSMLLTDPHLALT VFFGPCSPYQFRLTGPGKWEARNAIMT  
 QWDRTFKVIKARVVQESPPFESFLKVFSLALLVAIFLIFL

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8101\\_g09.zip](https://cdn.origene.com/chromatograms/mk8101_g09.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_002021

**ORF Size:** 1596 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

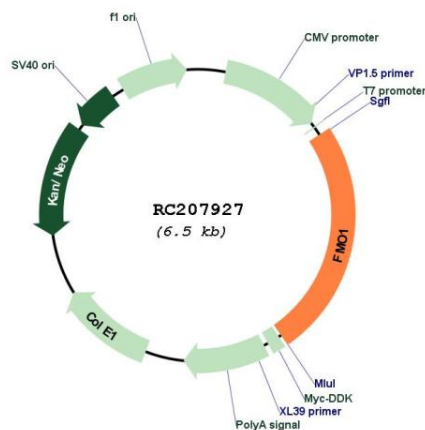
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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\\_002021.3](#)  
**RefSeq Size:** 2134 bp  
**RefSeq ORF:** 1599 bp  
**Locus ID:** 2326  
**UniProt ID:** [Q01740](#)  
**Cytogenetics:** 1q24.3  
**Protein Families:** Druggable Genome  
**Protein Pathways:** Drug metabolism - cytochrome P450  
**MW:** 60.3 kDa

**Gene Summary:** Metabolic N-oxidation of the diet-derived amino-trimethylamine (TMA) is mediated by flavin-containing monooxygenase and is subject to an inherited FMO3 polymorphism in man resulting in a small subpopulation with reduced TMA N-oxidation capacity resulting in fish odor syndrome Trimethylaminuria. Three forms of the enzyme, FMO1 found in fetal liver, FMO2 found in adult liver, and FMO3 are encoded by genes clustered in the 1q23-q25 region. Flavin-containing monooxygenases are NADPH-dependent flavoenzymes that catalyzes the oxidation of soft nucleophilic heteroatom centers in drugs, pesticides, and xenobiotics. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2013]

### Product images:



Circular map for RC207927