

Product datasheet for **RG207927**

FMO1 (NM_002021) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FMO1 (NM_002021) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FMO1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG207927 representing NM_002021
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCAAGCAGATTGCCATTGTGGGAGCTGGGGTTCAGCGGCCTGGCCTCCATCAAGTGTCTGGAAG
 AAGGACTGGAGCCACCTGCTTTGAGAGGAGCGATGACCTTGGGGGCTGTGGAGATTCACCGAACATGT
 TGAAGAAGGCAGAGCCAGTCTCTACAAGTCTGTGGTTTCCAACAGCTGCAAGGAGATGTCTTGTACTCA
 GACTTTCCATTCCAGAAGATTATCCAAACTATGTGCCAAATTCTCAATTCCTGGAATATCTCAAAATGT
 ATGCAAACCCTTTGACCTTCTGAAACACATTC AATTCAAGACCAAAGTCTGCAGTGAACAAAATGCTC
 AGATTCTGCTGTCTGGCCAATGGGAGGTGGTCACTATGCATGAAGAGAAGCAAGAGTCAAGCCATCTTT
 GATGCTGCATGGTCTGCACTGGCTTTCTACTAATCCTATTTGCCACTGGATTCCTTTCCAGGTATTA
 ATGCCTTTAAAGGCCAGTACTTTTCATAGCCGGCAATATAAGCATCCAGATATATTTAAGGACAAGAGAGT
 CCTTGTGATTGGAATGGGAAATTCTGGCACAGACATTGCTGTGGAGGCCAGCCACCTGGCGGAAAAGGTG
 TTCTCAGCACCACCGGAGGGGGATGGGTGATCAGCCGAATCTTTGACTCGGGCTACCCATGGGACATGG
 TGTTTCATGACACGCTTTCAGAACATGTTGAGAAATTCCTCCCAACCCCAATTGTGACTTGGTTGATGGA
 GCGAAAGATAACAACACTGGCTCAATCATGCAAATTACGGCTTAATACCAGAAGACAGGACTCAGCTGAAA
 GAGTTTGTGCTAAATGATGAGCTCCAGGACGCATCATCACTGGGAAAGTGTTCATCAGGCCAAGCATAA
 AAGAGGTAAGGAAAACTCTGTCAATTTAACAATACTTCAAAGGAAGAGCCTATTGACATCATTGTCTT
 TGCCACTGGATACACATTTGCTTTCCCTTCTTATGATGAGTCTGTAGTGAAGTTGAAGATGGCCAGGCC
 TCACTGTACAAGTATATCTTCCCTGCACATCTGCAAAAAGCCAACCCTGGCCATTATTGGCCTCATCAAAC
 CCTTGGGCTCCATGATACCTACAGGAGAAACACAAGCTCGGTGGGCTGTTGAGTCTGAAAGGTGTAAA
 TAAGTTACCACCACCAAGTGTCAATGATAGAGGAAATTAATGCAAGGAAAGAAAACAAGCCAGTTGGTTT
 GGCTTGTGCTACTGCAAGGCTTTACAATCAGATTATATCACATACATAGATGAACTCCTGACCTATATCA
 ATGCAAAAACCAACCTGTTCTCTATGCTCCTAACGGATCCACATCTGGCTCTGACCGTCTTCTTTGGCCC
 ATGCTCACCATAACAGTTCGGCTTACTGGCCAGGAAAATGGGAAGGAGCCAGAAATGCCATCATGACC
 CAGTGGGACCGAACATTCAAGGTCATCAAAGCTCGAGTTGTACAAGAGTCTCCATCTCCCTTTGAAAGTT
 TTCTTAAAGTCTTAGCTTTCTGGCTTTGCTTGTGGCTATTTTTCTGATTTTCTA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG207927 representing NM_002021
 Red=Cloning site Green=Tags(s)

MAKRVAIVGAGVSGLASIKCCLEEGLEPTCFERSDDLGLLWRFTEHVEEGRASLYKSVVSNCKEMSCYS
 DFPPFEDYPNYVPNSQFLEYLKMVYANHFDLLKHIQFKTKVCSVTKCSDSAVSGQWEVVTMHEEKQESAIF
 DAVMVCTGFLTNPYLPDLSFPGINAFKQYFHSRQYKHPDIFKDKRVLVIGMGNSGTDIAVEASHLAEKV
 FLSTTGGGWVISRIFDSGYPWDMVFMTRFQNLRLNSLPTPIVTWLMERKINNWLNHANYGLIPEDRTQLK
 EFVLNDELPGRIITGKVFIRPSIKEVKENSIVFNNTSKEEPIDIIIVFATGYTFAPFLDESVMKVEDGQA
 SLYKYIFPAHLQKPTLAIIGLIKPLGSMIPTGETQARWAVRVLKGVNKLPPPSVMIEEINARKENKPSWF
 GLCYKALQSDYITYIDELLTYINAKPNLFSMLLTDPHLALT VFFGPCSPYQFRLTGPGKWEARNAIMT
 QWDRTFKVIKARVVQESPPFESFLKVFSLALLVAIFLIFL

TRTRPLE – GFP Tag – V

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 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.

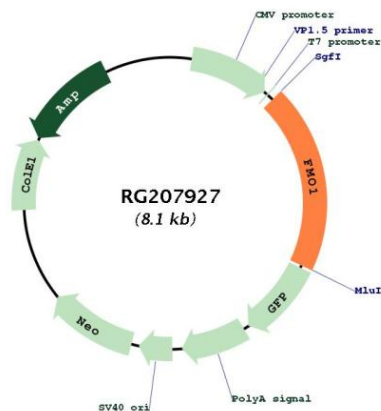
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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
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 RG207927