

Product datasheet for **RG238406**

FMO1 (NM_001282694) Human Tagged ORF Clone

Product data:

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|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | FMO1 (NM_001282694) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | FMO1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >RG238406 representing NM_001282694. Blue=ORF Red=Cloning site Green=Tag(s) |

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAAAC
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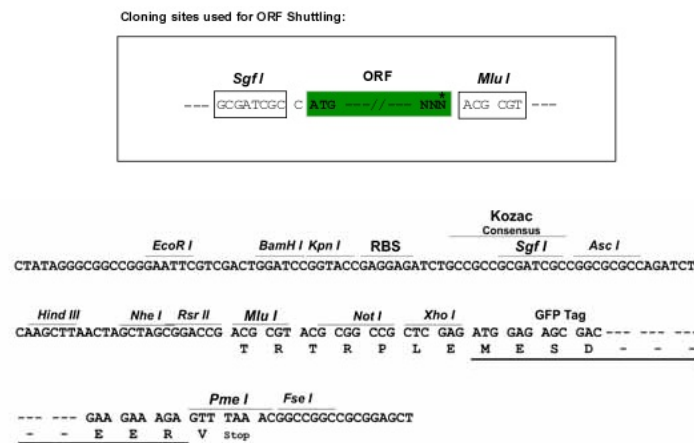
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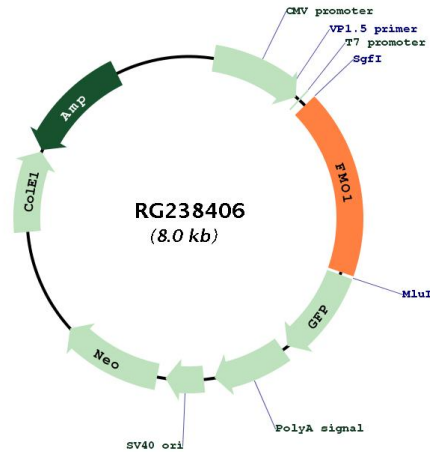
Protein Sequence: >Peptide sequence encoded by RG238406
 Blue=ORF Red=Cloning site Green=Tag(s)

MAKRVAIVGAGVSGLASIKCCLEEGLEPTCFERSDDLGLLWRFRTTKVCSVTKCSDSAVSGQWEVVTMHE
 EKQESAIFDAVMVCTGFLTNPYLPLDSFPGINAFKQYFHSRQYKHPDIFKDKRVLVIGMGNSGTDIAV
 EASHLAEKVFLSTGGGWVSRIFDSGYPWDMVFMTRFQNLRLNSLPTPIVTWLMERKINNWLHANYG
 LIPEDRTLQKEFVLNDELPGRIITGKVFIRPSIKEVKENSIVFNNTSKEEPIDIIIVFATGYTFAFPFLD
 ESVVKVEDGQASLYKYIFPAHLQKPTLAIIGLIKPLGSMIPTGETQARWAVRVLKGVNKLPPPSVMIEE
 INARKENKPSWFGLCYCKALQSDYITYIDELLTYINAKPNLFSMLLTDPHLALTFFGPCSPYQFRLTG
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 MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:


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|--------------------------|--|
| ACCN: | NM_001282694 |
| ORF Size: | 1407 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). |
| RefSeq: | NM_001282694.1 , NP_001269623.1 |
| RefSeq Size: | 2003 bp |
| RefSeq ORF: | 1410 bp |
| Locus ID: | 2326 |
| UniProt ID: | Q01740 |
| Cytogenetics: | 1q24.3 |
| Protein Families: | Druggable Genome |
| Protein Pathways: | Drug metabolism - cytochrome P450 |
| MW: | 53.3 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]