

Product datasheet for **RG238747**

FMO1 (NM_001282693) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FMO1 (NM_001282693) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FMO1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG238747 representing NM_001282693.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGCCAAAGCGAGTTGCCATTGTGGGAGCTGGGGTCAGCGGCCTGGCCTCCATCAAGTCTGTCTGGAA
GAAGACTGGAGCCACCTGCTTTGAGAGGAGCGATGACCTTGGGGGCTGTGGAGATTCACCGAACAT
GTTGAAGAAGGCAGAGCCAGTCTCTACAAGTCTGTGGTTTCCAACAGCTGCAAGGAGATGCTTGTGTAC
TCAGACTTTCCATTCCCAGAAGATTATCCAAACTATGTGCCAAATTCTCAATTCCTGGAATATCTCAAA
ATGTATGCAAACCACTTTGACCTTCTGAAACACATTCAATTCAAGACCAAAGTCTGCAGTGAACAAAA
TGCTCAGATTCTGCTGTCTCTGGCCAATGGGAGGTGGTCACTATGCATGAAGAGAAGCAAGAGTCAGCC
ATCTTTGATGCTGTCATGGTCTGCACTGGCTTTCTACTAATCCTATTTGCCACTGGATTCTTTCCA
GGTATTAATGCCTTTAAAGGCCAGTACTTTCATAGCCGGCAATAAAGCATCCAGATATATTTAAGGAC
AAGAGAGTCTTGTGATTGGAATGGGAAATCTGGCACAGACATTGCTGTGGAGGCCAGCCACCTGGCG
GAAAAGGTGTTCTCAGCACCCGAGGGGGATGGGTGATCAGCCGAATCTTTGACTCGGGCTACCCA
TGGGACATGGTGTTCATGACACGCTTTCAGAACATGTTGAGAAATTCCTCCCAACCCCAATTGTGACT
TGTTGATGGAGCGAAAGATAAAACAACCTGGCTCAATCATGCAAATACGGCTTAATACCAGAAGACAGG
ACTCAGCTGAAAGAGTTTGTGCTAAATGATGAGCTCCCAGGACGCATCATCACTGGGAAAGTGTTCATC
AGGCCAAGCATAAAAGAGGTAAGGAAAACCTGTGCATATTTAACAATACTTCAAAGGAAGAGCCTATT
GACATCATTGTCTTTGCCACTGGATACACATTTGCTTTCCCTTCTTGTGAGTCTGTAGTGAAAGTT
GAAGATGGCCAGGCCTCACTGTACAAGTATATCTCCCTGCACATCTGCAAAAGCCAACCCCTGGCCATT
ATTGGCCTCATCAAACCTTTGGGCTCCATGATACCTACAGGAGAAACACAAGCTCGGTGGGCTGTTCCA
GTCTGAAAGGTGTAATAAGTTACCACCACCAAGTGTGATGATAGAGGAAATTAATGCAAGGAAAGAA
AACAAGCCAGTTGGTTTGGCTTGTGCTACTGCAAGGCTTTACAATCAGATTATATCACATACATAGAT
GAACTCCTGACCTATATCAATGCAAAACCAACCTGTTCTCTATGCTCCTAACGGATCCACATCTGGCT
CTGACCGTCTTCTTTGGCCCATGCTCACCATACCAGTTCGCTTGACTGGCCAGGAAAATGGGAAGGA
GCCAGAAATGCCATCATGACCCAGTGGGACCGAACATTCAAGGTGATCAAAGCTCGAGTTGTACAAGAG
TCTCCATCTCCCTTTGAAAGTTTCTTAAAGTCTTAGCTTTCTGGCTTGTGCTTGTGCTATTTTCTG
ATTTTCTA
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAAAC
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Protein Sequence:

>Peptide sequence encoded by RG238747
 Blue=ORF Red=Cloning site Green=Tag(s)

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MAKRVAIVGAGVSGLASIKCCLEEGLEPTCFERSDDLGLLWRFTEHVEEGRASLYKSVVSNCKEMSCY
SDFPFPEDYPNYVPSNQFLEYLKYANHFDLLKHIQFKTKVCSVTKCSDSAVSGQWEVVTMHEEKQESA
IFDAVMVCTGFLTNPYLPDSFPGINAFKGOYFHSRQYKHPDIFKDKRVLVIGMNSGTDIAVEASHLA
EKVFLSTTGGGWVSRIFDSGYPWDMVFMTRFQNLRLNSLPTPIVTWLMERKINNWLNHANYGLIPEDR
TQLKEFVLNDELPGRIITGKVFIRPSIKEYKENSIVFNNTSKEEPIDIIIVFATGYTFAPFLDESVMKV
EDGQASLYKIFPAHLQKPTLAIIGLIKPLGSMIPTGETQARWAVRVLKGVNKLPPPSVMIEEINARKE
NKPSWFLCYCKALQSDYITYIDELLYINAKPNLFSMLLTDPHLALTVFFGPCSPYQFRLTGPKGWEG
ARNAIMTQWDRTFKVIKARVVQESPPFESFLKVFSLALLVAIFLIFL
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
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Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001282693

ORF Size: 1596 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_001282693.2](#)

RefSeq Size: 2192 bp

RefSeq ORF: 1599 bp

Locus ID: 2326

UniProt ID: [Q01740](#)

Cytogenetics: 1q24.3

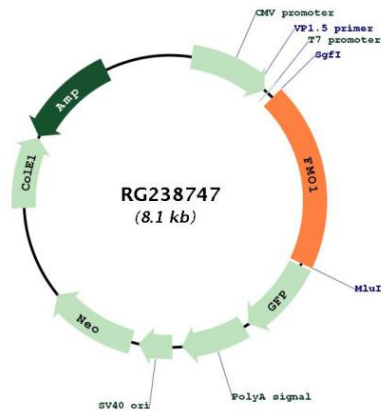
Protein Families: Druggable Genome

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 RG238747