

Recombinant Human FMO1, GST-tagged

Cat. No. FMO1-119H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species Human

Source Wheat Germ

ProteinLength 1-532 a.a.

ProductOverview Recombinant Human FMO1(1 aa. - 532 aa), fused with aN-terminal GST tag, was expressed in Wheat germ.

Description 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.

MolecularMass 84.26kDa

AA Sequence MAKRVAIVGAGVSGLASIKCCLEEGLEPTCFERSDDLGGGLWRFTEHVEEGRASLYK
SVVSNSCKEMSCYSDFPFDPEDYPNYVPNSQFLEYLKMYANHFDLLKHIQFKTKVCS
VTKCSDSAVSGQWEVVTMHEEKQESAIFDAVMVCTGFLTNPYLPLDSFPGINAFKG

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QYFHSRQYKHPDIFKDKRVLVIGMNSGTDIAVEASHLAEKVFLSTTGGGWVISRIFD
SGYPWDMVMFTRFQNMLRNSLPTPIVTWLMERKINNWLNHANYGLIPEDRTQLKEF
VLNDELPGRIITGKVFIRPSIKEVKENSVIFNNTSKEEPIDIIVFATGYTFAFPFLDESVV
KVEDGQASLYKYIFPAHLQKPTLAIIGLIKPLGSMIPTGETQARWAVRVLKGVNKLPPP
SVMIEEINARKENKPSWFGLCYCKALQSDYITYIDELLTYINAKPNLFSMLLTDPHLAL
TVFFGPCSPYQFRLTGPGKWEGARNAIMTQWDRTFKVIKARVVQESPPFESFLKV
FSFLALLVAIFLIFL

StorageBuffer 50 mMTris-HCl, 10 mM reduced Glutathione, pH8.0 in the elution buffer.

Storage Store at -80°C. Aliquot to avoid repeated freezing and thawing.

GENE INFORMATION

Gene Name FMO1 flavin containing monooxygenase 1 [Homo sapiens]

Official Symbol FMO1

Synonyms flavin containing monooxygenase 1; FMO1; dimethylanilinemonooxygenase [N-oxide-forming] 1; FMO 1; OTTHUMP00000033537; dimethylaniline oxidase 1; Flavin-containing monooxygenase 1 (fetal liver); fetal hepatic flavin-containing monooxygenase 1; Dimethylaniline oxidase 1; Fetal hepatic flavin-containing monooxygenase 1; EC 1.14.13.8

Gene ID 2326

mRNA Refseq NM_002021

Protein Refseq NP_002012

MIM 136130

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UniProt ID	Q01740
Chromosome Location	1q23-q25
Pathway	Drug metabolism - cytochrome P450; Biological oxidations
Function	FAD binding; NADP or NADPH binding; binding; flavin-containing monooxygenase activity; monooxygenase activity

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