

Recombinant Human FMO3 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. FMO3-6061H Lot. No. (See product label)

SPECIFICATION

Product Overview

FMO3 MS Standard C13 and N15-labeled recombinant protein (NP_008825) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.

Species

Human

Source

HEK293

Description

Flavin-containing monooxygenases (FMO) are an important class of drug-metabolizing enzymes that catalyze the NADPH-dependent oxygenation of various nitrogen-, sulfur-, and phosphorous-containing xenobiotics such as therapeutic drugs, dietary compounds, pesticides, and other foreign compounds. The human FMO gene family is composed of 5 genes and multiple pseudogenes. FMO members have distinct developmental- and tissue-specific expression patterns. The expression of this FMO3 gene, the major FMO expressed in adult liver, can vary up to 20-fold between individuals. This inter-individual variation in FMO3 expression levels is likely to have significant effects on the rate at which xenobiotics are metabolised and, therefore, is of considerable interest to the pharmaceutical industry. This transmembrane protein localizes to the endoplasmic reticulum of many tissues. Alternative splicing of this gene results in multiple transcript variants encoding different isoforms. Mutations in this gene cause the disorder trimethylaminuria (TMAu) which is characterized by the accumulation and excretion of unmetabolized trimethylamine and a distinctive body odor. In healthy individuals, trimethylamine is primarily converted to the non odorous trimethylamine N-oxide.

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Molecular Mass	59.9 kDa
AA Sequence	MGKKVAIIGAGVSGLASIRSCLEEGLEPTCFEKSNDIGGLWKFSDHAE EGRASIYKSV FSNSSKEMMCFPDFFPDFPNFMHNSKIQEYIIAFAKEKNLLKYIQFKTFVSSVNKH PDFATTGQWDVTTERDGKKESAVFDAVMVCSGHHVYPNLPKESFPGLNHFKGKCF HSRDYKEPGVFNGKRVLVVGLGNSGCDIATELSRTAEQVMISSRSGSWVMSRVWD NGYPWDMLLVTRFGTFLKNNLPTAISDWLYMKQMNARFKHENYGLMPLNGVLRKE PVFNDELPA S ILCGIVSVKPNVKEFTETSAIFEDGTIFEGIDCVIFATGYSFAYPFLDESI IKS RNNEILFKGVFPPLLEKSTIAVIGFVQSLGAAIPTVDLQSRWAAQVIKGTCTLPSM EDMMDINEKMEKKRKWFGKSETIQTDYIVYMDELSSFIGAKPNIPWLFLTDPK LAM EVYFGPCSPYQFRLVGPQWPGARNAILTQWDRSLKPMQTRVVGR LQKPCFFFH WLKLFAIPILLIAVFLVLTTRTRPLEQKLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 3 months from receipt of products under proper storage and handling conditions.
Storage	Store at -80 centigrade. Avoid repeated freeze-thaw cycles.
Concentration	50 µg/mL as determined by BCA
Storage Buffer	100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name	FMO3 flavin containing monooxygenase 3 [Homo sapiens (human)]
Official Symbol	FMO3
Synonyms	FMO3; flavin containing monooxygenase 3; dimethylaniline monooxygenase [N-

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oxide-forming] 3; FMO 3; FMO II; FMO form 2; dimethylaniline oxidase 3; hepatic flavin-containing monooxygenase 3; hepatic flavin-containing monooxygenase-3; TMAU; FMOII; dJ127D3.1; MGC34400;

Gene ID [2328](#)

mRNA Refseq [NM_006894](#)

Protein Refseq [NP_008825](#)

MIM [136132](#)

UniProt ID [P31513](#)

SDS-PAGE

