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Product Information

MemDX™ Membrane Protein Human FMO3 (Flavin containing dimethylaniline monoxygenase 3) Full Length

Cat. No.: **MPC3125K**
This product is for research use only and is not intended for diagnostic use.

This product is a made-to-order Human FMO3 membrane protein expressed in HEK293. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

Product Specifications

Host Species
Human

Target Protein
FMO3

Protein Length
Full length

Protein Class
Oxidoreductase

TMD
1

Sequence
MGKKVAIIGAGVSGLASIRSCLEEGLEPTCFEKSNDIGGLWKFSDHAEEG
RASIYKSVFSNSSKEMMCFPDFPFPDDFPNFMHNSKIQEYIIAFAKEKNL
LKYIQFKTFVSSVNKHPDFATTGQWDVTTERDGKKESAVFDAVMVCSGHH
VYPNLPKESFPGLNHFKGKCFHSRDYKEPGVFNGKRVLVVGLGNSGCDIA
TELSRTAEQVMISSRSGSWVMSRVWDNGYPWDMLLVTRFGTFLKNNLPTA
ISDWLYVKQMNARFKHENYGLMPLNGVLRKEPVFNDELPASILCGIVSVK
PNVKEFTETSAIFEDGTIFEGIDCVIFATGYSFAYPFLDESIIKSRNNEI
ILFKGVFPPLLEKSTIAVIGFVQSLGAAIPTVDLQSRWAAQVIKGTCTLP
SMEDMMNDINEKMEKKRKWFGKSETIQTDYIVYMDELSSFIGAKPNIPWL
FLTDPKLAMEVYFGPCSPYQFRLVGPGQWPGARNAILTQWDRSLKPMQTR
VVGRLQKPCFFFHWLKLFAIPILLIAVFLVLT

Product Description

Expression Systems
HEK293

Tag
Based on specific requirements

Protein Format

Detergent or based on specific requirements (Detergent, Liposome, Nanodisc, Polymer, VLP)

Form

Liquid

Storage

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -72°C or lower. Avoid freeze/thaw cycles.

Target

Target Protein

FMO3

Full Name

Flavin containing dimethylaniline monoxygenase 3

Introduction

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.

Alternative Names

FMO3; TMAU; FMOII; dJ127D3.1; dimethylaniline monooxygenase [N-oxide-forming] 3; FMO form 2; dimethylaniline oxidase 3; flavin containing monooxygenase 3; hepatic flavin-containing monooxygenase-3; trimethylamine monooxygenase; Flavin containing dimethylaniline monoxygenase 3

Gene ID

2328

UniProt ID

P31513

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