FMO3 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	FMO3, Polyclonal Antibody
Full Product Name	FMO3, NT (Dimethylaniline Monooxygenase [N-oxide-forming] 3, Hepatic Flavin-containing Monooxygenase 3, FMO 3, FMO Form 2, FMO II, Dimethylaniline Oxidase 3) (MaxLight 405)
Product Gene Name	anti-FMO3 antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405.
Purity/Purification	Purified by Immunoaffinity chromatography.
Specificity	Recognizes human FMO3.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight405 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	60.033
OMIM	gene 602079
3D Structure	ModBase 3D Structure for P31513
Immunogen	Synthetic peptide selected from the N-terminal region of human FMO3 (KLH).
Conjugate	MaxLight405
Note	Preservative Free
Product Categories/Family for anti-FMO3 antibody	Antibodies; Enzymes; Oxidase
Applications Tested/Suitable for anti-FMO3 antibody	Western Blot (WB), FLISA
Application Notes for anti-FMO3 antibody	WB: 1:100-1:500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-FMO3 antibody	MBS6476990 is an antibody targeting FMO3. Also known as FMO3, NT (Dimethylaniline Monooxygenase [N-oxide-forming] 3, Hepatic Flavin-containing Monooxygenase 3, FMO 3, FMO Form 2, FMO II, Dimethylaniline Oxidase 3) (MaxLight 405). Reactive in Human. Host: Rabbit.
Product References and Citations for anti-FMO3 antibody	1. Allerston, C.K., et.al., Mol. Genet. Metab. 98(1-2), 198-202 (2009).
Other Notes	Small volumes of anti-FMO3 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for FMO3. It may not necessarily be applicable to this product.

NCBI GI #	50541965
NCBI GeneID	2328
NCBI Accession #	NP_008825.4
UniProt Primary Accession #	P31513
UniProt Related Accession #	P31513
GenBank Nucleotide #	NP_008825.4
NCBI Official Full Name	dimethylaniline monooxygenase
NCBI Official Synonym Full Names	flavin containing dimethylaniline monoxygenase 3
NCBI Official Symbol	FMO3
NCBI Official Synonym Symbols	TMAU; FMOII; dJ127D3.1
UniProt Protein Name	Dimethylaniline monooxygenase [N-oxide-forming] 3
UniProt Synonym Protein Names	Dimethylaniline oxidase 3; FMO II; FMO form 2; Hepatic flavin-containing monooxygenase 3; FMO 3; Trimethylamine monooxygenase (EC:1.14.13.148)
Protein Family	Dimethylaniline monooxygenase
UniProt Gene Name	FMO3
UniProt Synonym Gene Names	FMO 3
UniProt Entry Name	FMO3_HUMAN
NCBI Protein Information	dimethylaniline monooxygenase [N-oxide-forming] 3
NCBI Summary for FMO3	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.[provided by RefSeq, Jan 2016]

UniProt Comments for FMO3	FMO3: Involved in the oxidative metabolism of a variety of xenobiotics such as drugs and pesticides. It N-oxygenates primary aliphatic alkylamines as well as secondary and tertiary amines. Plays an important role in the metabolism of trimethylamine (TMA), via the production of TMA N-oxide (TMAO). Is also able to perform S-oxidation when acting on sulfide compounds. Defects in FMO3 are the cause of trimethylaminuria (TMAU); also known as fish-odor syndrome. TMAU is an inborn error of metabolism associated with an offensive body odor and caused by deficiency of FMO-mediated N-oxidation of amino- trimethylamine (TMA) derived from foodstuffs. Such individuals excrete relatively large amounts of TMA in their urine, sweat, and breath, and exhibit a fishy body odor characteristic of the malodorous free amine. Belongs to the FMO family. Protein type: EC 1.14.13.8; EC 1.14.13.148; Xenobiotic Metabolism - drug metabolism - cytochrome P450; Oxidoreductase Chromosomal Location of Human Ortholog: 1q24.3 Cellular Component: endoplasmic reticulum membrane; intracellular membrane-bound organelle; integral to membrane Molecular Function: amino acid binding; FAD binding; NADP binding; flavin-containing monooxygenase activity Biological Process: xenobiotic metabolic process; drug metabolic process Disease: Trimethylaminuria
Research Articles on FMO3	**1.** genetic variations in the FMO3 gene are associated with the response to antithyroid drug maintenance treatment in ATD-induced agranulocytosis patients of Chinese Han population
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