

Rabbit Anti-FMO3 antibody

SL13186R

Product Name:	FMO3
Chinese Name:	二甲基苯胺单加氧酶3抗体
Alias:	Dimethylaniline monooxygenase [N oxide forming] 3; Dimethylaniline monooxygenase [N-oxide-forming] 3; Dimethylaniline monooxygenase 3; Dimethylaniline oxidase 3; dJ127D3.1; Flavin containing monooxygenase 3; FMO 3; FMO form 2; FMO II; FMO3; FMO3_HUMAN; FMOII; Hepatic flavin containing monooxygenase 3; Hepatic flavin-containing monooxygenase 3; MGC34400; TMAU; Trimethylamine monooxygenase.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Cow, Monkey,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100- 500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	60kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human FMO3:111-210/532
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The Flavin containing monooxygenase family consists of five gene products, FMO1-5, that are major enzymatic oxidants involved in the metabolism of various therapeutics.

Located in the liver, FMO3 is a hepatic microsomal enzyme that oxygenates soft nucleophiles such as secondary and tertiary amines. Through its N-oxygenase capabilities, FMO3 acts on a variety of xenobiotics to catalyze oxidative digestion. Defects in the FMO3 gene are the primary cause of trimethylaminuria (TMAuria), an inborn error of metabolism associated with a fishy body odor emitting from sweat, urine and breath. Genetic mutations in FMO3 lead to the N-oxidation of aminotrimethylamine derived from food products, thus producing the malodor associated with TMAuria.

Function:

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.

Subcellular Location: Microsome membrane. Endoplasmic reticulum membrane.

Tissue Specificity: Liver.

Post-translational modifications: Belongs to the FMO family.

DISEASE:

Defects in FMO3 are the cause of trimethylaminuria (TMAU) [MIM:602079]; 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.

Similarity: Belongs to the FMO family.

SWISS: P31513

Gene ID: 2328

Database links:

Entrez Gene: 2328Human

Entrez Gene: 14262 Mouse
Entrez Gene: 84493Rat
Omim: 136132Human
SwissProt: P31513Human
SwissProt: P97501Mouse
SwissProt: Q9EQ76Rat
Important Note:
therapeutic or diagnostic applications.

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