

Anti-FMO1 Picoband Antibody

Catalog # ABO12275

Product Information

Application	WB
Primary Accession	Q01740
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Dimethylaniline monooxygenase [N-oxide-forming] 1(FMO1) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	2326
Other Names	Dimethylaniline monooxygenase [N-oxide-forming] 1, 1.14.13.8, Dimethylaniline oxidase 1, Fetal hepatic flavin-containing monooxygenase 1, FMO 1, FMO1
Calculated MW	60311
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
Subcellular Localization	Microsome membrane. Endoplasmic reticulum membrane.
Tissue Specificity	Expressed mainly in fetal liver, adult kidney and, to a lesser extent, the intestine.
Source	Eukaryota
Protein Name	Dimethylaniline monooxygenase [N-oxide-forming] 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Na ₂ S ₂ O ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human FMO1 (334-363aa AFPFLDES ^W VKVEDGQASLYKYIFPAHLQK), different from the related mouse sequence by one amino acid, and from the related rat sequence by two amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the FMO family.

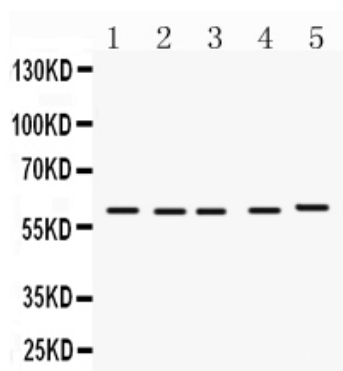
Protein Information

Name	FMO1 (HGNC:3769)
Function	Broad spectrum monooxygenase that catalyzes the oxygenation of a wide variety of nitrogen- and sulfur-containing compounds including xenobiotics (PubMed: 32156684). Catalyzes the S-oxygenation of hypotaurine to produce taurine, an organic osmolyte involved in cell volume regulation as well as a variety of cytoprotective and developmental processes (PubMed: 32156684). In vitro, catalyzes the N- oxygenation of trimethylamine (TMA) to produce trimethylamine N-oxide (TMAO) and could therefore participate to the detoxification of this compound that is generated by the action of gut microbiota from dietary precursors such as choline, choline containing compounds, betaine or L- carnitine (By similarity).
Cellular Location	Endoplasmic reticulum membrane {ECO:0000250 UniProtKB:P36365}; Single-pass membrane protein
Tissue Location	Expressed mainly in fetal and adult liver.

Background

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. Several transcript variants encoding different isoforms have been found for this gene.

Images



Anti- FMO1 Picoband antibody, ABO12275, Western blotting
 All lanes: Anti FMO1 (ABO12275) at 0.5ug/ml
 Lane 1: Rat Liver Tissue Lysate at 50ug
 Lane 2: Mouse Liver Tissue Lysate at 50ug
 Lane 3: Rat Kidney Tissue Lysate at 50ug
 Lane 4: Mouse Kidney Tissue Lysate at 50ug
 Lane 5: SMMC Whole Cell Lysate at 40ug
 Predicted bind size: 60KD
 Observed bind size: 60KD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.