

Anti-FMO3 Picoband Antibody
Catalog # ABO12276**Specification**

Anti-FMO3 Picoband Antibody - Product Information

Application	WB
Primary Accession	P31513
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Dimethylaniline monooxygenase [N-oxide-forming] 3(FMO3) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

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

Anti-FMO3 Picoband Antibody - Additional Information

Gene ID 2328

Other Names

Dimethylaniline monooxygenase [N-oxide-forming] 3, 1.14.13.8, Dimethylaniline oxidase 3, FMO II, FMO form 2, Hepatic flavin-containing monooxygenase 3, FMO 3, Trimethylamine monooxygenase, 1.14.13.148, FMO3

Calculated MW

60033 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Microsome membrane. Endoplasmic reticulum membrane.

Tissue Specificity

Liver.

Protein Name

Dimethylaniline monooxygenase [N-oxide-forming] 3

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human FMO3 (404-433aa DMMNDINEKMEKKRKWFGKSETIQTDIYIVY), different from the related mouse sequence by eight amino acids, and from the related rat sequence by six 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.

Anti-FMO3 Picoband Antibody - Protein Information**Name** FMO3**Function**

Essential hepatic enzyme that catalyzes the oxygenation of a wide variety of nitrogen- and sulfur-containing compounds including drugs as well as dietary compounds (PubMed: [10759686](http://www.uniprot.org/citations/10759686), PubMed: [30381441](http://www.uniprot.org/citations/30381441), PubMed: [32156684](http://www.uniprot.org/citations/32156684)). Plays an important role in the metabolism of trimethylamine (TMA), via the production of trimethylamine N-oxide (TMAO) metabolite (PubMed: [9776311](http://www.uniprot.org/citations/9776311)). TMA is generated by the action of gut microbiota using dietary precursors such as choline, choline containing compounds, betaine or L-carnitine. By regulating TMAO concentration, FMO3 directly impacts both platelet responsiveness and rate of thrombus formation (PubMed: [29981269](http://www.uniprot.org/citations/29981269)).

Cellular Location

Microsome membrane {ECO:0000250|UniProtKB:P32417}; Single-pass membrane protein.
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P32417}; Single-pass membrane protein

Tissue Location

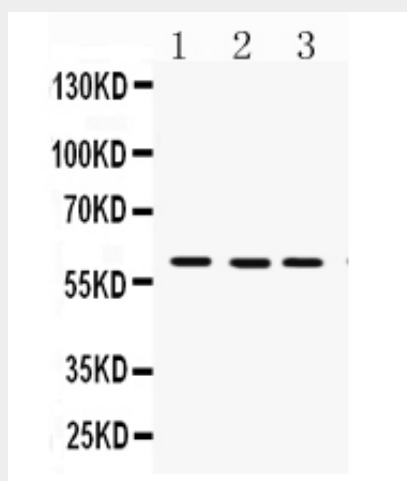
Liver.

Anti-FMO3 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-FMO3 Picoband Antibody - Images



Anti- FMO3 Picoband antibody, ABO12276, Western blotting All lanes: Anti FMO3 (ABO12276) at 0.5ug/ml
Lane 1: Rat Liver Tissue Lysate at 50ug
Lane 2: Mouse Liver Tissue Lysate at 50ug
Lane 3: SMMC Whole Cell Lysate at 40ug
Predicted bind size: 60KD
Observed bind size: 60KD

Anti-FMO3 Picoband Antibody - Background

FMO3 (Flavin-containing Monooxygenase 3) is an enzyme that in humans is encoded by the FMO3 gene. The mammalian flavin-containing monooxygenases (FMO) represent a multigene family whose gene products are localized in the endoplasmic reticulum of many tissues. The FMO3 gene contains 1 noncoding and 8 coding exons. And the FMO3 gene is mapped on 1q24.3. Using quantitative RNase protection assays, FMO3 is present in low abundance in fetal liver and lung and in adult kidney and lung, and in much greater abundance in adult liver. By Western blot analysis of human liver microsomal samples ranging from 8 weeks gestation to 18 years of age, FMO1 is the major fetal isoform and FMO3 is the major adult isoform. FMO3 was expressed at intermediate levels until 11 years of age when a gender-independent increase in FMO3 expression was observed during puberty. Sufferers of trimethylaminuria may display a reduced ability to metabolize substrates for FMO3 such as nicotine. FMO3 metabolizes a number of drugs, including amphetamine, clozapine, deprenyl, metamphetamine, tamoxifen, ethionamide, thiacetazone, and sulindac sulfide.