

Anti-FMO1 Picoband Antibody
Catalog # ABO12275**Specification**

Anti-FMO1 Picoband Antibody - 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.

Anti-FMO1 Picoband Antibody - 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 MW KDa

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.

Protein Name

Dimethylaniline monooxygenase [N-oxide-forming] 1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human FMO1 (334-363aa AFPFLDES^{VVKVEDGQASLYKYIFPAHLQK}), 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.

Anti-FMO1 Picoband Antibody - 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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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

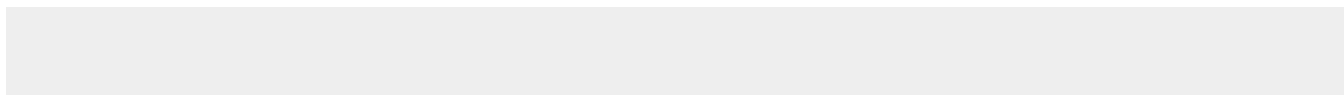
Tissue Location

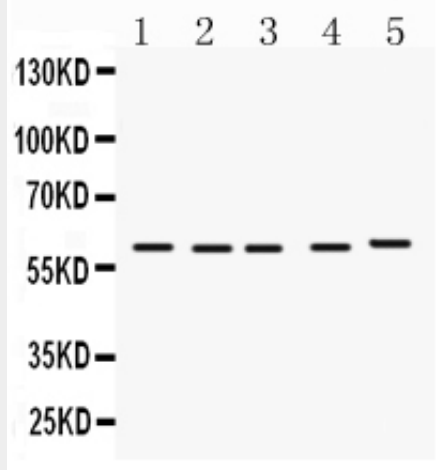
Expressed mainly in fetal and adult liver.

Anti-FMO1 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-FMO1 Picoband Antibody - 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

Anti-FMO1 Picoband Antibody - 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.