10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-FMO3 Antibody
Catalog # ABO11073

Specification

Anti-FMO3 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 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, Rat, Human, Mouse

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 Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the N-terminus of human FMO3(76-90aa DDFPNFMHNSKIQEY), different from the related rat sequence by one amino acid, and from the related mouse 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 r˚Constitution, 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 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, PubMed:30381441, PubMed:32156684). Plays an important role in the metabolism of trimethylamine (TMA), via the production of trimethylamine N-oxide (TMAO) metabolite (PubMed: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).

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.

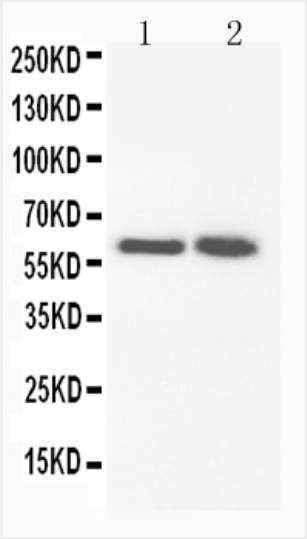
Anti-FMO3 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-FMO3 Antibody - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Anti-FMO3 antibody, ABO11073, Western blottingLane 1: Rat Liver Tissue Lysate Lane 2: Rat Liver Tissue Lysate

Anti-FMO3 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. 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.