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Anti-FMO5 Antibody
Catalog # ABO11414

Specification

Anti-FMO5 Antibody - Product Information

Application	**WB**
Primary Accession	P49326
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Dimethylaniline monooxygenase[N-oxide-forming] 5(FMO5) detection. Tested with WB in Human;Mouse;Rat.

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

Anti-FMO5 Antibody - Additional Information

Gene ID 2330

Other Names
Dimethylaniline monooxygenase [N-oxide-forming] 5, 1.14.13.8, Dimethylaniline oxidase 5, Hepatic flavin-containing monooxygenase 5, FMO 5, FMO5

Calculated MW
60221 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 in fetal and adult liver.

Protein Name
Dimethylaniline monooxygenase[N-oxide-forming] 5

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 FMO5(77-90aa DHYPNFMHNAQVLE), different from the related rat sequence by one amino acid, and different 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-FMO5 Antibody - Protein Information

Name FMO5 (HGNC:3773)

Function
Acts as a Baeyer-Villiger monooxygenase on a broad range of substrates. Catalyzes the insertion of an oxygen atom into a carbon- carbon bond adjacent to a carbonyl, which converts ketones to esters (PubMed:20947616, PubMed:26771671, PubMed:28783300). Active on diverse carbonyl compounds, whereas soft nucleophiles are mostly non- or poorly reactive (PubMed:26771671, PubMed:7872795). In contrast with other forms of FMO it is non- or poorly active on 'classical' substrates such as drugs, pesticides, and dietary components containing soft nucleophilic heteroatoms (Probable) (PubMed:7872795). Able to oxidize drug molecules bearing a carbonyl group on an aliphatic chain, such as nabumetone and pentoxifylline (PubMed:28783300). Also, in the absence of substrates, shows slow but yet significant NADPH oxidase activity (PubMed:26771671). Acts as a positive modulator of cholesterol biosynthesis as well as glucose homeostasis, promoting metabolic aging via pleiotropic effects (By similarity).

Cellular Location
Microsome membrane. Endoplasmic reticulum membrane

Tissue Location
Expressed in fetal and adult liver.

Anti-FMO5 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence

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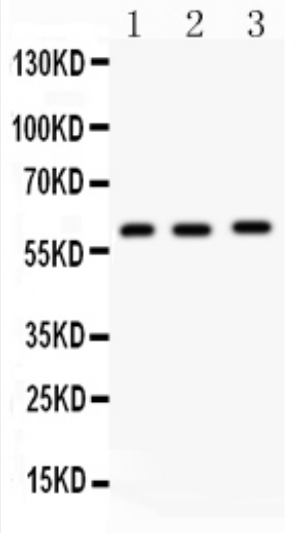
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-FMO5 Antibody - Images



Anti-FMO5 antibody, ABO11414, Western blottingAll lanes: Anti FMO5 (ABO11414) at 0.5ug/mlLane 1: Mouse Liver Tissue Lysate at 50ugLane 2: Mouse Testis Tissue Lysate at 50ugLane 3: Mouse Spleen Tissue Lysate at 50ugPredicted bind size: 60KDObserved bind size: 60KD

Anti-FMO5 Antibody - Background

Dimethylaniline monooxygenase[N-oxide-forming] 5 also known as FMO 5 is an enzyme that in humans is encoded by the FMO5 gene. By fluorescence in situ hybridization, this gene was assigned to human chromosome 1q21.1. FMO5 is not an efficient drug-metabolizing enzyme and that it may have an alternative physiologic role. FMO5 transcripts play an important role in progesterone-regulated in breast cancer cells specifically under the control of the progesterone receptor B-isoform.