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FMO5 Rabbit pAb

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Catalog # AP55084

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P49326
Reactivity	Human, Mouse
Predicted	Rat, Pig, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	60221
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FMO5
Epitope Specificity	251-350/533
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Microsome membrane. Endoplasmic reticulum membrane.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The Flavin containing monooxygenase family consists of five gene products, FMO1-5, that are major enzymatic oxidants involved in the metabolism of various therapeutics. Localizing to microsomal and endoplasmic reticulum membranes, FMO5 (flavin containing monooxygenase 5), also known as dimethylaniline monooxygenase [N-oxide-forming] 5, hepatic flavin-containing monooxygenase 5 or dimethylaniline oxidase 5, is a 533 amino acid protein belonging to the FMO family. Expressed in adult and fetal liver, FMO5 is unlike other FMO family members because it does not function as a drug-metabolizing enzyme. FMO5 binds FAD as a cofactor and is encoded by a gene located on human chromosome 1q21.1.

Additional Information

Gene ID	2330
Other Names	Flavin-containing monooxygenase 5, FMO 5, Baeyer-Villiger monooxygenase 1, hBVMO1, 1.14.13.-, Dimethylaniline monooxygenase [N-oxide-forming] 5, 1.14.13.8, Dimethylaniline oxidase 5, NADPH oxidase, 1.6.3.1, FMO5 (HGNC:3773)
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

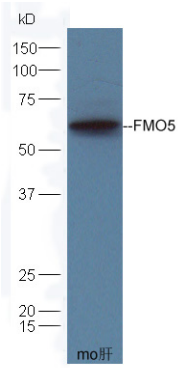
Protein Information

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.

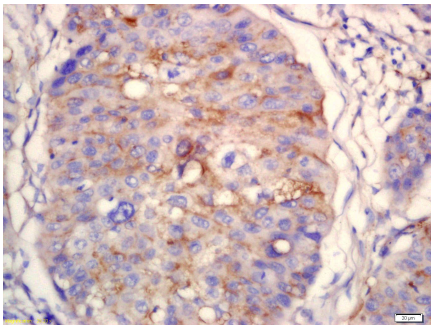
Background

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Images



Protein: liver(mouse)lyates at 40ug;
Primary: Anti-FMO5 (AP55084) at 1:300;
Secondary: HRP conjugated Goat-Anti-Rabbit IgG(bse-0295G-HRP) at 1: 5000;
ECL excited the fluorescence;
Predicted band size : 60 kD
Observed band size :60 kD



Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-FMO5 Polyclonal Antibody, Unconjugated(AP55084) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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