

FMO1 Rabbit pAb

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Catalog # AP56153

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q01740
Predicted	Rat, Pig, Human, Mouse, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	60311
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FMO1
Epitope Specificity	301-400/532
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	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. [provided by RefSeq, Sep 2013]

Additional Information

Gene ID	2326
Other Names	Flavin-containing monooxygenase 1, 1.14.13.148, FMO1 (HGNC:3769)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500 0-10000
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	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). 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). 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.

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