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FMO2 Rabbit pAb

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Catalog # AP56154

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q99518
Predicted	Rat, Chimpanzee, Human, Mouse, Rabbit, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	60907
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FMO2
Epitope Specificity	51-150/471
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 monooxygenases are NADPH-dependent enzymes that catalyze the oxidation of many drugs and xenobiotics. In most mammals, there is a flavin-containing monooxygenase that catalyzes the N-oxidation of some primary alkylamines through an N-hydroxylamine intermediate. However, in some human populations, this enzyme is truncated and likely degraded rapidly. The protein encoded by this gene represents the truncated form and apparently has no catalytic activity. A functional allele found in African Americans has been reported, but no sequence evidence has been deposited to support the finding. This gene is found in a cluster with the FMO1, FMO3, and FMO4 genes on chromosome 1. [provided by RefSeq, Jun 2013]

Additional Information

Gene ID	2327
Other Names	Flavin-containing monooxygenase 2, 1.14.13.-, Dimethylaniline oxidase 2, FMO 1B1, Pulmonary flavin-containing monooxygenase 2, FMO 2, FMO2 (HGNC:3770)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	FMO2 (HGNC:3770)
Function	Catalyzes the oxidative metabolism of numerous xenobiotics, including mainly therapeutic drugs and insecticides that contain a soft nucleophile, most commonly nitrogen and sulfur and participates to their bioactivation (PubMed:15144220, PubMed:15294458, PubMed:18930751, PubMed:18948378, PubMed:9804831). Specifically catalyzes S-oxygenation of sulfur derived compounds such as thioureas-derived compounds, thioetherorganophosphates to their sulfenic acid (PubMed:15144220, PubMed:9804831). In vitro, catalyzes S-oxygenation of the second-line antitubercular drugs thiacetazone (TAZ) and ethionamide (ETA), forming a sulfinic acid and a carbodiimide via a postulated sulfenic acid intermediate (PubMed:18930751, PubMed:18948378). Also catalyzes S- oxygenation of the thioether-containing organophosphate insecticides, phorate and disulfoton (PubMed:15294458).
Cellular Location	Microsome membrane {ECO:0000250|UniProtKB:P17635}; Single-pass membrane protein. Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P17635}; Single-pass membrane protein
Tissue Location	Expressed in lung (at protein level). Expressed predominantly in lung, and at a much lesser extent in kidney. Also expressed in fetal lung, but not in liver, kidney and brain

Background

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