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FMO1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6994c

Specification

FMO1 Antibody (Center) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	Q01740
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**391-417**

FMO1 Antibody (Center) - Additional Information

Gene ID 2326

Other Names
Dimethylaniline monooxygenase [N-oxide-forming] 1, Dimethylaniline oxidase 1, Fetal hepatic flavin-containing monooxygenase 1, FMO 1, FMO1

Target/Specificity
This FMO1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 391-417 amino acids from the Central region of human FMO1.

Dilution
WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
FMO1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

FMO1 Antibody (Center) - 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

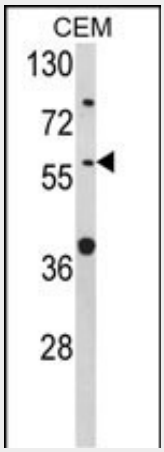
Tissue Location
Expressed mainly in fetal and adult liver.

FMO1 Antibody (Center) - 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

FMO1 Antibody (Center) - Images



Western blot analysis of FMO1 Antibody (Center) (Cat. #AP6994c) in CEM cell line lysates (35ug/lane). FMO1 (arrow) was detected using the purified Pab.

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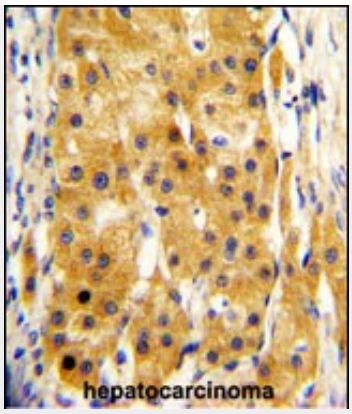
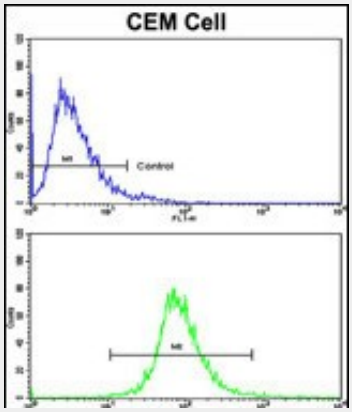


Formalin-fixed and paraffin-embedded human hepatocarcinoma with FMO1 Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of CEM cells using FMO1 Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

FMO1 Antibody (Center) - Background

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.

FMO1 Antibody (Center) - References

Hines,R.N. et.al., Expert Opin Drug Metab Toxicol 2 (1), 41-49 (2006)