

Cytochrome P450 4F2 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51151**Specification**

Cytochrome P450 4F2 Antibody - Product Information

Application	WB, IP, IHC-P, E
Primary Accession	P78329
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	60 KDa

Cytochrome P450 4F2 Antibody - Additional Information**Gene ID** 8529**Other Names**

Phylloquinone omega-hydroxylase CYP4F2, 20-hydroxyeicosatetraenoic acid synthase, 20-HETE synthase, 11413-, Arachidonic acid omega-hydroxylase, CYP4F2, Cytochrome P450 4F2, Cytochrome P450-LTB-omega, Leukotriene-B(4) 20-monooxygenase 1, Leukotriene-B(4) omega-hydroxylase 1, CYP4F2 (http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=2645)
HGNC:2645

Dilution

WB~~1:1000
IP~~N/A
IHC-P~~N/A
E~~N/A

Format

0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Cytochrome P450 4F2 Antibody - Protein Information**Name** CYP4F2 {ECO:0000303|PubMed:10492403, ECO:0000312|HGNC:HGNC:2645}**Function**

A cytochrome P450 monooxygenase involved in the metabolism of various endogenous substrates, including fatty acids, eicosanoids and vitamins (PubMed:[10660572](http://www.uniprot.org/citations/10660572), PubMed:[10833273](http://www.uniprot.org/citations/10833273), PubMed:[11997390](http://www.uniprot.org/citations/11997390), PubMed:[17341693](http://www.uniprot.org/citations/17341693), PubMed:

href="http://www.uniprot.org/citations/18574070" target="_blank">18574070, PubMed:18577768). Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (CPR; NADPH-ferrihemoprotein reductase). Catalyzes predominantly the oxidation of the terminal carbon (omega-oxidation) of long- and very long-chain fatty acids. Displays high omega-hydroxylase activity toward polyunsaturated fatty acids (PUFAs) (PubMed:18577768). Participates in the conversion of arachidonic acid to omega-hydroxyeicosatetraenoic acid (20-HETE), a signaling molecule acting both as vasoconstrictive and natriuretic with overall effect on arterial blood pressure (PubMed:10660572, PubMed:17341693, PubMed:18574070). Plays a role in the oxidative inactivation of eicosanoids, including both pro-inflammatory and anti-inflammatory mediators such as leukotriene B4 (LTB4), lipoxin A4 (LXA4), and several HETEs (PubMed:10660572, PubMed:10833273, PubMed:17341693, PubMed:18574070, PubMed:18577768, PubMed:8026587, PubMed:9799565). Catalyzes omega-hydroxylation of 3-hydroxy fatty acids (PubMed:18065749). Converts monoepoxides of linoleic acid leukotoxin and isoleukotoxin to omega-hydroxylated metabolites (PubMed:15145985). Contributes to the degradation of very long-chain fatty acids (VLCFAs) by catalyzing successive omega-oxidations and chain shortening (PubMed:16547005, PubMed:18182499). Plays an important role in vitamin metabolism by chain shortening. Catalyzes omega-hydroxylation of the phytol chain of tocopherols (forms of vitamin E), with preference for gamma-tocopherols over alpha-tocopherols, thus promoting retention of alpha-tocopherols in tissues (PubMed:11997390). Omega-hydroxylates and inactivates phyloquinone (vitamin K1), and menaquinone-4 (MK-4, a form of vitamin K2), both acting as cofactors in blood coagulation (PubMed:19297519, PubMed:24138531).

Cellular Location

Microsome membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Peripheral membrane protein

Tissue Location

Liver. Also present in kidney: specifically expressed in the S2 and S3 segments of proximal tubules in cortex and outer medulla (PubMed:10660572).

Cytochrome P450 4F2 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Cytochrome P450 4F2 Antibody - Images

Cytochrome P450 4F2 Antibody - Background

Cytochromes P450 are a group of heme-thiolate monooxygenases. In liver microsomes, this enzyme is involved in an NADPH-dependent electron transport pathway. It oxidizes a variety of structurally unrelated compounds, including steroids, fatty acids, and xenobiotics.

Cytochrome P450 4F2 Antibody - References

Kikuta Y.,et al.FEBS Lett. 348:70-74(1994).
Chen L.,et al.Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
Kikuta Y.,et al.DNA Cell Biol. 18:723-730(1999).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Grimwood J.,et al.Nature 428:529-535(2004).