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Anti-CYP4F2 Antibody (N-Terminus)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS18409

Product Information

Application	WB, IHC-P, IP
Primary Accession	P78329
Predicted	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	59853
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	8529
Alias Symbol	CYP4F2
Other Names	CYP4F2, CYPIVF2, Cytochrome P450 4F2, Cytochrome P450-LTB-omega, CPF2
Target/Specificity	Recognizes endogenous levels of Cytochrome P450 4F2 protein.
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-CYP4F2 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

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, PubMed:10833273, PubMed:11997390, PubMed:17341693, PubMed: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 phytyl 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 phylloquinone (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).

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