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CYP4F2 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI15007

Product Information

Application	WB
Primary Accession	P78329
Other Accession	NM_001082, NP_001073
Reactivity	Human, Mouse, Rat, Rabbit, Goat, Dog, Guinea Pig, Horse, Bovine, Sheep
Predicted	Human, Pig, Bovine, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	59853

Additional Information

Gene ID	8529
Alias Symbol	CPF2
Other Names	Phylloquinone omega-hydroxylase CYP4F2, 1.14.13.194, 20-hydroxyeicosatetraenoic acid synthase, 20-HETE synthase, 1.14.13.-, Arachidonic acid omega-hydroxylase, CYPIVF2, Cytochrome P450 4F2, Cytochrome P450-LTB-omega, Leukotriene-B(4) 20-monooxygenase 1, Leukotriene-B(4) omega-hydroxylase 1, 1.14.13.30, CYP4F2 (HGNC:2645)
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-CYP4F2 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	CYP4F2 antibody - C-terminal region 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

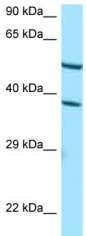
Tissue Location

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

References

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

Images



WB Suggested Anti-CYP4F2 Antibody Titration: 1.0 µg/ml
Positive Control: HepG2 Whole CellCYP4F2 is strongly supported by BioGPS gene expression data to be expressed in Human HepG2 cells