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CYPIVF11 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55443

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q9HBI6
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	60146

Additional Information

Gene ID	57834
Other Names	Cytochrome P450 4F11, CYPIVF11, 1.14.14.1, 3-hydroxy fatty acids omega-hydroxylase CYP4F11, Docosahexaenoic acid omega-hydroxylase, 1.14.14.79, Long-chain fatty acid omega-monooxygenase, 1.14.14.80, Phylloquinone omega-hydroxylase CYP4F11, 1.14.14.78, CYP4F11 {ECO:0000303|PubMed:10964514, ECO:0000312|HGNC:HGNC:13265}
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=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	CYP4F11 {ECO:0000303|PubMed:10964514, ECO:0000312|HGNC:HGNC:13265}
Function	A cytochrome P450 monooxygenase involved in the metabolism of various endogenous substrates, including fatty acids and their oxygenated derivatives (oxylipins) (PubMed:15364545, PubMed:18065749, PubMed:24138531, PubMed:37373382). 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) (PubMed:15364545, PubMed:18065749, PubMed:24138531, PubMed:37373382). Catalyzes with high efficiency the oxidation of the terminal carbon (omega-oxidation) of 3-hydroxy fatty acids, such as 3- hydroxyhexadecanoic and 3-hydroxyoctadecanoic acids, likely participating in the biosynthesis of long-chain 3-hydroxydicarboxylic acids (PubMed:18065749, PubMed:19932081). 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:24138531). Metabolizes with low efficiciency fatty acids, including (5Z,8Z,11Z,14Z)-eicosatetraenoic acid (arachidonate) and its oxygenated metabolite 8-hydroxyeicosatetraenoic acid (8-HETE) (PubMed:15364545, PubMed:19932081). Catalyzes N- and O-demethylation of drugs such as erythromycin, benzphetamine, ethylmorphine, chlorpromazine, imipramine and verapamil (PubMed:15364545). Catalyzes the oxidation of dialkylresorcinol 2 (PubMed:36565673).
Cellular Location	Endoplasmic reticulum membrane; Single-pass membrane protein. Microsome membrane; Single-pass membrane protein
Tissue Location	Expressed mainly in human liver, followed by kidney, heart, and skeletal muscle.

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