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CYP2J2 Polyclonal Antibody

Catalog # AP69404

Product Information

Application	WB, IHC-P, IF
Primary Accession	P51589
Reactivity	Human, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	57611

Additional Information

Gene ID	1573
Other Names	CYP2J2; Cytochrome P450 2J2; Arachidonic acid epoxygenase; CYPIIJ2
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

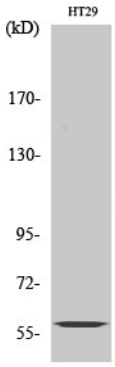
Name	CYP2J2 {ECO:0000303|PubMed:19737933, ECO:0000312|HGNC:HGNC:2634}
Function	A cytochrome P450 monooxygenase involved in the metabolism of polyunsaturated fatty acids (PUFA) in the cardiovascular system (PubMed:19965576, PubMed:8631948). Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (NADPH--hemoprotein reductase) (PubMed:19965576, PubMed:8631948). Catalyzes the epoxidation of double bonds of PUFA (PubMed:19965576, PubMed:8631948). Converts arachidonic acid to four regioisomeric epoxyeicosatrienoic acids (EpETrE), likely playing a major role in the epoxidation of endogenous cardiac arachidonic acid pools (PubMed:8631948). In endothelial cells, participates in eicosanoids metabolism by converting hydroperoxide species into hydroxy epoxy metabolites. In combination with 15- lipoxygenase metabolizes arachidonic acid and converts hydroperoxyicosatetraenoates (HpETEs) into hydroxy epoxy eicosatrienoates (HEETs), which are precursors of vasodilatory trihydroxyicosatrienoic acids (THETAs). This hydroperoxide isomerase activity is NADPH- and O2-independent (PubMed:19737933). Catalyzes the

	monooxygenation of a various xenobiotics, such as danazol, amiodarone, terfenadine, astemizole, thioridazine, tamoxifen, cyclosporin A and nabumetone (PubMed:19923256). Catalyzes hydroxylation of the anthelmintics albendazole and fenbendazole (PubMed:23959307). Catalyzes the sulfoxidation of fenbedazole (PubMed:19923256).
Cellular Location	Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome membrane; Peripheral membrane protein
Tissue Location	Highly expressed in heart, present at lower levels in liver, kidney and skeletal muscle (at protein level)

Background

Metabolizes arachidonic acid predominantly via a NADPH- dependent olefin epoxidation to all four regioisomeric cis- epoxyeicosatrienoic acids. One of the predominant enzymes responsible for the epoxidation of endogenous cardiac arachidonic acid pools (PubMed:8631948). Catalyzes the monooxygenation of a various compounds, such as danazol, amiodarone, terfenadine, astemizole, thioridazine, tamoxifen, cyclosporin A and nabumetone (PubMed:19923256). Catalyzes hydroxylation of the anthelmintics albendazole and fenbendazole (PubMed:23959307). Catalyzes the sulfoxidation of fenbedazole (PubMed:19923256).

Images



Western Blot analysis of various cells using CYP2J2 Polyclonal Antibody