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CYP2J2 Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7450c

Specification

CYP2J2 Antibody (Center) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P51589
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**57611**
Antigen Region	**156-183**

CYP2J2 Antibody (Center) - Additional Information

Gene ID 1573

Other Names
Cytochrome P450 2J2, Arachidonic acid epoxygenase, CYPIIJ2, CYP2J2

Target/Specificity
This CYP2J2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 156-183 amino acids from the Central region of human CYP2J2.

Dilution
WB~~1:1000
IHC-P~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CYP2J2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

CYP2J2 Antibody (Center) - 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:8631948, PubMed:19965576).

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:8631948, PubMed:19965576). Catalyzes the epoxidation of double bonds of PUFA (PubMed:8631948, PubMed:19965576). 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)

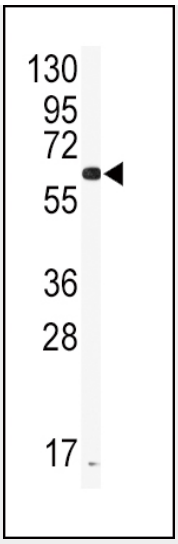
CYP2J2 Antibody (Center) - Protocols

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

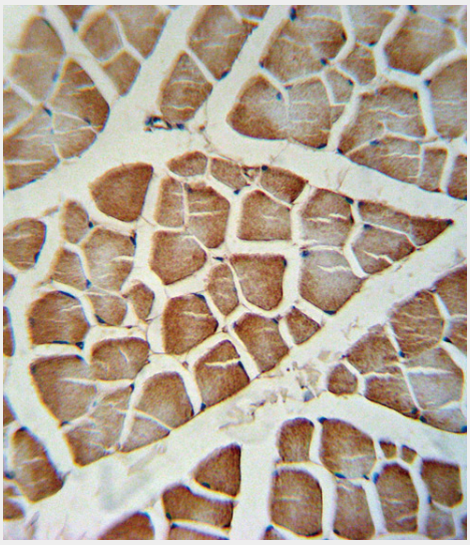
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CYP2J2 Antibody (Center) - Images

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Western blot analysis of anti-CYP2J2 Antibody (Center) (Cat.#AP7540c) in CEM cell line lysates (35ug/lane). CYP2J2 (arrow) was detected using the purified Pab.



CYP2J2 Antibody (Center)(Cat. #AP7450c) immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the CYP2J2 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

CYP2J2 Antibody (Center) - Background

CYP2J2 is a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the endoplasmic reticulum and is thought to be the predominant enzyme responsible for epoxidation of endogenous arachidonic acid in cardiac tissue.

CYP2J2 Antibody (Center) - References

Wu S., Moomaw C.R., Tomer K.B.J. Biol. Chem. 271:3460-3468(1996)
King L.M., Ma J., Srettabunjong S.Mol. Pharmacol. 61:840-852(2002)