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Anti-Cytochrome P450 2B6 Antibody

Catalog # AP51146

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P20813
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56278

Additional Information

Gene ID	1555
Other Names	Cytochrome P450 2B6; 1, 4-cineole 2-exo-monooxygenase; CYPIIB6; Cytochrome P450 IIB1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Cytochrome P450 2B6. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

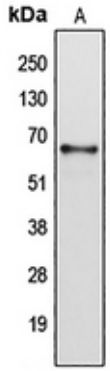
Name	CYP2B6 {ECO:0000303|PubMed:21289075, ECO:0000312|HGNC:HGNC:2615}
Function	A cytochrome P450 monooxygenase involved in the metabolism of endocannabinoids and steroids (PubMed:12865317, PubMed:21289075). Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (NADPH-- hemoprotein reductase). Catalyzes the epoxidation of double bonds of arachidonoylethanolamide (anandamide) to 8,9-, 11,12-, and 14,15-epoxyeicosatrienoic acid ethanolamides (EpETrE-EAs), potentially modulating endocannabinoid system signaling (PubMed:21289075). Hydroxylates steroid hormones, including testosterone at C-16 and estrogens at C-2 (PubMed:12865317, PubMed:21289075). Plays a role in the oxidative metabolism of xenobiotics, including plant lipids and drugs (PubMed:11695850, PubMed:22909231). Acts as a 1,4-cineole 2-exo-monooxygenase (PubMed:11695850).

Cellular Location	Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome membrane; Peripheral membrane protein
Tissue Location	Expressed in liver, lung and heart right ventricle.

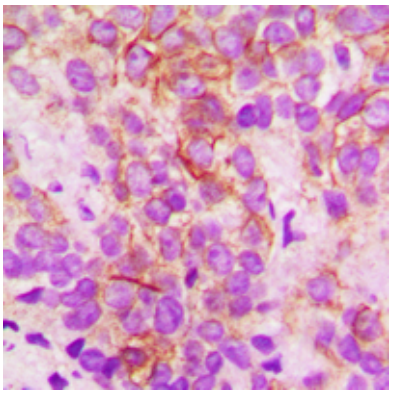
References

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Zhuge J.,et al.Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.
Grimwood J.,et al.Nature 428:529-535(2004).
Miles J.S.,et al.Nucleic Acids Res. 17:8241-8255(1989).
Thum T.,et al.Lancet 355:979-983(2000).

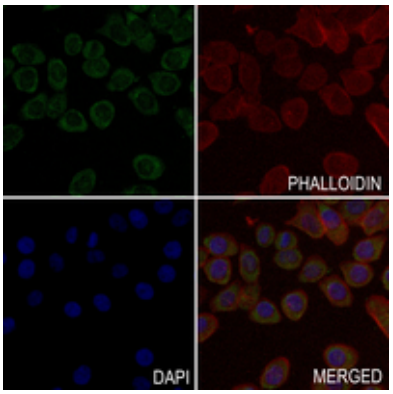
Images



Western blot analysis of Cytochrome P450 2B6 expression in HepG2 (A) whole cell lysates. (Predicted band size: 33; 56 kD; Observed band size: 66 kD)



Immunohistochemical analysis of Cytochrome P450 2B6 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Cytochrome P450 2B6 staining in PCCL cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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