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CYP2S1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12635B

Product Information

Application	WB, IHC-P, IF, E
Primary Accession	Q96SQ9
Other Accession	NP_085125.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB17020
Calculated MW	55817
Antigen Region	399-428

Additional Information

Gene ID	29785
Other Names	Cytochrome P450 2S1, CYPIIS1, CYP2S1
Target/Specificity	This CYP2S1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 399-428 amino acids from the C-terminal region of human CYP2S1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 IF~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	CYP2S1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CYP2S1 {ECO:0000303|PubMed:11181079, ECO:0000312|HGNC:HGNC:15654}
Function	A cytochrome P450 monooxygenase involved in the metabolism of retinoids and eicosanoids (PubMed:12711469, PubMed:21068195). In epidermis, may

contribute to the oxidative metabolism of all-trans- retinoic acid. For this activity, 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:12711469). Additionally, displays peroxidase and isomerase activities toward various oxygenated eicosanoids such as prostaglandin H2 (PGH2) and hydroperoxyeicosatetraenoates (HPETEs) (PubMed:21068195). Independently of cytochrome P450 reductase, NADPH, and O2, catalyzes the breakdown of PGH2 to hydroxyheptadecatrienoic acid (HHT) and malondialdehyde (MDA), which is known to act as a mediator of DNA damage (PubMed:21068195).

Cellular Location

Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome membrane; Peripheral membrane protein

Tissue Location

Expressed at higher levels in extrahepatic tissues including trachea, lung, stomach, small intestine, colon, kidney, breast, placenta and spleen (PubMed:11181079, PubMed:12711469) Expressed in peripheral blood leukocytes (PubMed:11181079) Constitutively expressed in skin (at protein level) (PubMed:12711469)

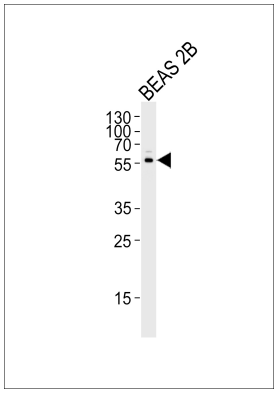
Background

This gene encodes 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. In rodents, the homologous protein has been shown to metabolize certain carcinogens; however, the specific function of the human protein has not been determined.

References

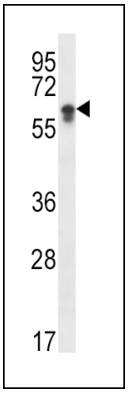
Bui, P.H., et al. Mol. Pharmacol. 76(5):1031-1043(2009) Saito, A., et al. J. Hum. Genet. 54(6):317-323(2009) Deb, S., et al. Expert Opin Drug Metab Toxicol 5(4):367-380(2009) Jang, Y.J., et al. Ther Drug Monit 29(3):292-298(2007) Hanzawa, Y., et al. Drug Metab. Pharmacokinet. 22(2):136-140(2007)

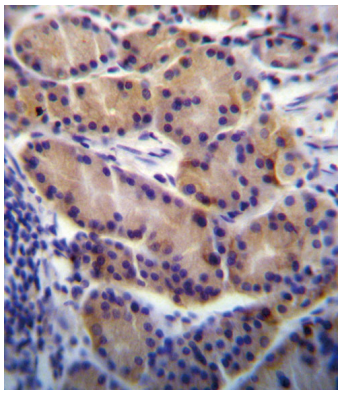
Images



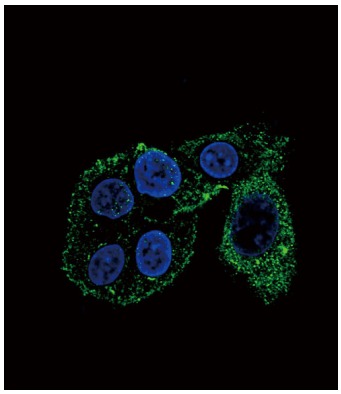
Western blot analysis of lysate from BEAS 2B cell line, using CYP2S1 Antibody (C-term)(Cat. #AP12635b). AP12635b was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug.

CYP2S1 Antibody (C-term) (Cat. #AP12635b) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the CYP2S1 antibody detected the CYP2S1 protein (arrow).





CYP2S1 Antibody (C-term) (Cat. #AP12635b)immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of CYP2S1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



Confocal immunofluorescent analysis of CYP2S1 Antibody (C-term)(Cat#AP12635b) with HepG2 cell followed by Alexa Fluor搴?488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).

Citations

- Upregulation of CYP2S1 by oxaliplatin is associated with p53 status in colorectal cancer cell lines.
- CYP2S1 Depletion Enhances Colorectal Cell Proliferation is Associated with PGE2-Mediated Activation of β-catenin Signaling.