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Anti-Cytochrome P450 2S1 Antibody

Catalog # AP60261

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q96SQ9
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	55817

Additional Information

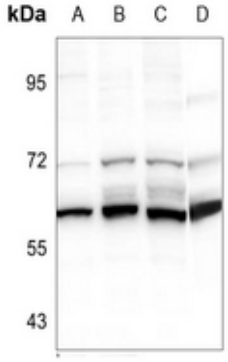
Gene ID	29785
Other Names	Cytochrome P450 2S1; CYPIIS1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Cytochrome P450 2S1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IF/IC (1/100 - 1/500) 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

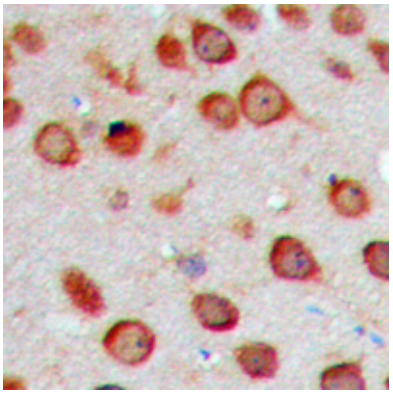
Name	CYP2S1 {ECO:0000303|PubMed:11181079, ECO:0000312|HGNC:HGNC:15654}
Function	A cytochrome P450 monooxygenase involved in the metabolism of retinoids and eicosanoids (PubMed:12711469, PubMed:21068195). In epidermis, may contribute to the oxidative metabolism of all-trans- retinoic acid. For this activity, 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)

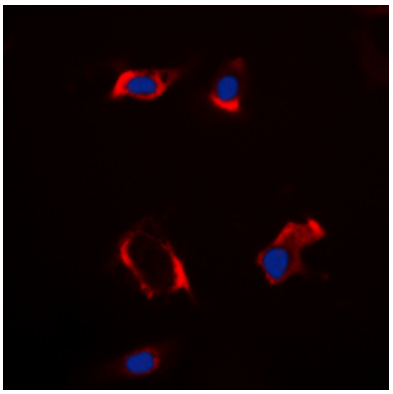
Images



Western blot analysis of Cytochrome P450 2S1 expression in U87MG (A), A549 (B), AML12 (C), mouse colon (D) whole cell lysates. (Predicted band size: 55 kD; Observed band size: 62 kD)

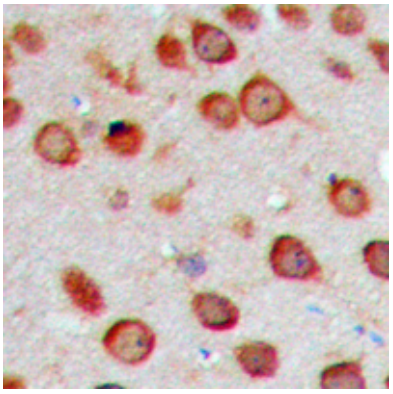


Immunohistochemical analysis of Cytochrome P450 2S1 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and 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 2S1 staining in HepG2 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 DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

Immunohistochemical analysis of Cytochrome P450 2S1 staining in human brain 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.

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