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Anti-Cytochrome P450 2A7 Antibody

Catalog # AP51145

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P20853
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56425

Additional Information

Gene ID	1549
Other Names	Cytochrome P450 2A7; CYPIIA7; Cytochrome P450 IIA4
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human Cytochrome P450 2A7. 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

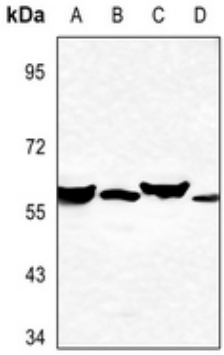
Protein Information

Name	CYP2A7
Synonyms	CYP2A4 {ECO:0000303|PubMed:2322567}
Function	Xenobiotic-metabolizing enzyme that can catalyze the hydroxylation of species-specific aromatic amine substrates (PubMed:38792050). Catalyzes the hydroxylation of diclofenac to a hydroxydiclofenac metabolite in vitro, suggesting a potential role in drug metabolism (PubMed:38792050). Does not metabolize nicotine, coumarin, or 7-ethoxycoumarin (PubMed:38792050).
Cellular Location	Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome membrane; Peripheral membrane protein

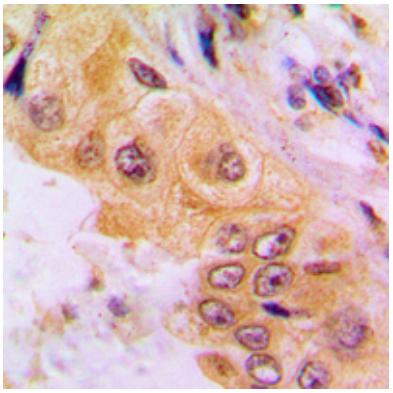
References

Yamano S.,et al.Biochemistry 29:1322-1329(1990).
Fernandez-Salguero P.,et al.Am. J. Hum. Genet. 57:651-660(1995).
Grimwood J.,et al.Nature 428:529-535(2004).

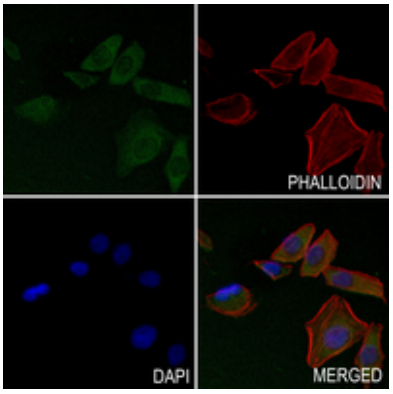
Images



Western blot analysis of Cytochrome P450 2A7 expression in mouse liver (A), mouse brain (B), rat liver (C), rat brain (D) whole cell lysates. (Predicted band size: 56 kD; Observed band size: 56 kD)



Immunohistochemical analysis of Cytochrome P450 2A7 staining in human liver 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 2A7 staining in MCF7 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'.