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Anti-Cytochrome P450 3A7 Antibody

Catalog # AP51915

Product Information

Application	WB, IHC
Primary Accession	P24462
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	57470

Additional Information

Gene ID	1551
Other Names	Cytochrome P450 3A7; CYPIIIA7; Cytochrome P450-HFLA
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Cytochrome P450 3A7. The exact sequence is proprietary.
Dilution	WB~~ 1:2000 IHC~~1:100~500
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

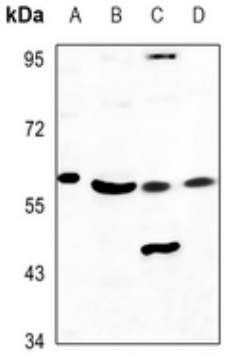
Name	CYP3A7 {ECO:0000303|PubMed:17178770, ECO:0000312|HGNC:HGNC:2640}
Function	A cytochrome P450 monooxygenase involved in the metabolism of steroid hormones and vitamins during embryogenesis (PubMed:11093772, PubMed:12865317, PubMed:14559847, PubMed:17178770, PubMed:9555064). Mechanistically, uses molecular 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:11093772, PubMed:12865317, PubMed:14559847, PubMed:17178770, PubMed:9555064). Catalyzes the hydroxylation of carbon-hydrogen bonds. Metabolizes 3beta-hydroxyandrost-5-en-17-one (dehydroepiandrosterone, DHEA), a precursor in the biosynthesis of androgen and estrogen steroid hormones (PubMed:17178770, PubMed:9555064). Exhibits high catalytic activity for the formation of hydroxyestrogens from estrone (E1), particularly D- ring hydroxylated estrone at the C16-alpha position (PubMed:12865317, PubMed:14559847). Mainly hydroxylates all trans-retinoic acid (atRA) to

	4-hydroxyretinoate and may play a role in atRA clearance during fetal development (PubMed:11093772). Also involved in the oxidative metabolism of xenobiotics including anticonvulsants (PubMed:9555064).
Cellular Location	Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome membrane; Peripheral membrane protein
Tissue Location	Expressed in fetal liver (at protein level).

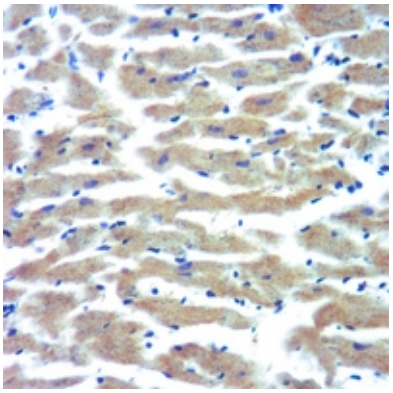
References

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Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Wrighton S.A.,et al.Arch. Biochem. Biophys. 268:144-151(1989).

Images



Western blot analysis of Cytochrome P450 3A7 expression in Hela (A), mouse liver (B), rat liver (C), rat kidney (D) whole cell lysates. (Predicted band size: 57 kD; Observed band size: 57 kD)



Immunohistochemical analysis of Cytochrome P450 3A7 staining in rat heart 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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