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Cytochrome P450 3A7 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51915

Product Information

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

Additional Information

Gene ID	100861540;1551
Other Names	Cytochrome P450 3A7, CYPIIIA7, Cytochrome P450-HFLA, CYP3A7
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
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
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).

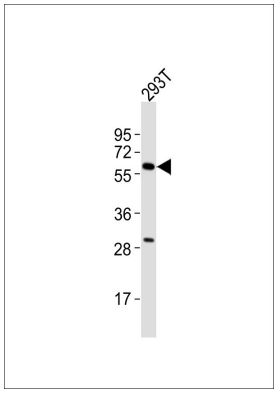
Background

Cytochromes P450 are a group of heme-thiolate monooxygenases. In liver microsomes, this enzyme is involved in an NADPH-dependent electron transport pathway. It oxidizes a variety of structurally unrelated compounds, including steroids, fatty acids, and xenobiotics.

References

Komori M.,et al.J. Biochem. 105:161-163(1989).
Gellner K.,et al.Pharmacogenetics 11:111-121(2001).
Scherer S.W.,et al.Science 300:767-772(2003).
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



Anti-Cytochrome P450 3A7 Antibodyat 1:2000 dilution + 293T whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution Predicted band size : 58 kDa Blocking/Dilution buffer: 5% NFDM/TBST.