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CYP3A7 Polyclonal Antibody

Catalog # AP69414

Product Information

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

Additional Information

Gene ID	100861540;1551
Other Names	CYP3A7; Cytochrome P450 3A7; CYPIIIA7; Cytochrome P450-HFLA
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications. E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

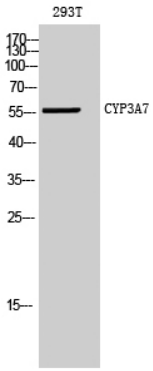
Name	CYP3A7 {ECO:0000303|PubMed:17178770, ECO:0000312|HGNC:HGNC:2640}
Function	A cytochrome P450 monooxygenase involved in the metabolism of steroid hormones and vitamins during embryogenesis (PubMed:11093772, PubMed:12865317, PubMed:14559847, PubMed:17178770, PubMed:9555064). Mechanistically, uses molecular 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.

Images



Western Blot analysis of 293T cells using CYP3A7 Polyclonal Antibody diluted at 1：500