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CYP4B1 Polyclonal Antibody

Catalog # AP69416

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	P13584
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58991

Additional Information

Gene ID	1580
Other Names	CYP4B1; Cytochrome P450 4B1; CYPIVB1; Cytochrome P450-HP
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200 ICC~~N/A 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

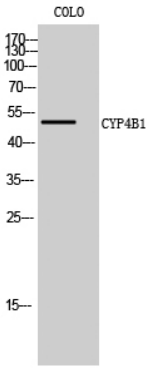
Name	CYP4B1 (HGNC:2644)
Function	Catalyzes the omega- and (omega-1)-hydroxylation of saturated fatty acids and n-alkanes (By similarity). Also bioactivates xenobiotics such as the procarcinogen 3-methoxy-4-aminoazobenzene and the cyclic arylamines 2-aminofluorene and 2-aminoanthracene (By similarity). In addition, catalyzes O-dealkylation of 7-ethoxycoumarin (By similarity). Functions at the interface of xenobiotic and endobiotic metabolism, contributing both to fatty acid and hydrocarbon oxidation and to the bioactivation of diverse xenobiotics. Preferentially hydroxylates the terminal carbon (omega-hydroxylation) of medium-chain fatty acids (C8-C10), with regioselectivity decreasing as chain length increases. C8 fatty acids and C7 n-alkanes display optimal chain length for regioselective omega-hydroxylation, and n- alkanes (C7-C10) are generally turned over faster and with higher regioselectivity than the corresponding fatty acids. In addition to omega/omega-1 hydroxylation, also catalyzes alpha-, beta-, gamma- and delta-hydroxylation of mid-chain length fatty acids, whereas fatty alcohols of the same chain length are almost exclusively hydroxylated at the omega, omega-1 and omega-2 positions (By similarity).

Cellular Location	Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P15128}; Peripheral membrane protein {ECO:0000250|UniProtKB:P15128}. Microsome membrane {ECO:0000250|UniProtKB:P15128}; Peripheral membrane protein {ECO:0000250|UniProtKB:P15128}
Tissue Location	Detected in the liver and lung (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 COLO cells using CYP4B1 Polyclonal Antibody

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.