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Cytochrome P450 2W1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP53339

Product Information

Application	WB
Primary Accession	Q8TAV3
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	53844

Additional Information

Gene ID	54905
Other Names	Cytochrome P450 2W1, 1.14.14.-, CYPIIW1, CYP2W1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Cytochrome P450 2W1. The exact sequence is proprietary.
Dilution	WB~~ 1:1000
Format	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	CYP2W1 {ECO:0000303|PubMed:26936974, ECO:0000312|HGNC:HGNC:20243}
Function	A cytochrome P450 monooxygenase that may play a role in retinoid and phospholipid metabolism (PubMed:22591743, PubMed:26936974). Catalyzes the hydroxylation of saturated carbon hydrogen bonds. Hydroxylates all trans-retinoic acid (atRA) to 4- hydroxyretinoate and may regulate atRA clearance. Other retinoids such as all-trans retinol and all-trans retinal are potential endogenous substrates (PubMed:26936974). Catalyzes both epoxidation of double bonds and hydroxylation of carbon hydrogen bonds of the fatty acyl chain of 1-acylphospholipids/2-lysophospholipids. Can metabolize various lysophospholipids classes including lysophosphatidylcholines (LPCs), lysophosphatidylinositols (LPIs), lysophosphatidylserines (LPSs), lysophosphatidylglycerols (LPGs), lysophosphatidylethanolamines (LPEs) and lysophosphatidic acids (LPAs) (PubMed:22591743). Has low or no activity toward 2-acylphospholipids/1-lysophospholipids, diacylphospholipids and free fatty

	acids (PubMed:22591743, PubMed:26936974). May play a role in tumorigenesis by activating procarcinogens such as aflatoxin B1, polycyclic aromatic hydrocarbon dihydrodiols and aromatic amines (PubMed:16551781, PubMed:20805301, PubMed:24278521). 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 (CPR; NADPH-ferrihemoprotein reductase) (PubMed:22591743, PubMed:26936974).
Cellular Location	Endoplasmic reticulum lumen. Cell membrane. Microsome membrane. Note=About 8% are expressed on the cell surface.
Tissue Location	Very low levels are detected in fetal and adult tissues. Highly expressed in several tumor samples, in particular colon and adrenal tumors.

Background

Seems to have broad catalytic activity towards several chemicals, including polycyclic aromatic hydrocarbon dihydrodiols and aromatic amines (PubMed:16551781, PubMed:24278521). Actives also in the metabolism of indoline substrates and is able to activate aflatoxin B1 into cytotoxic products (PubMed:20805301). Furthermore, it seems to be involved in the oxydation of lysophospholipids and fatty acids (PubMed:22591743).

References

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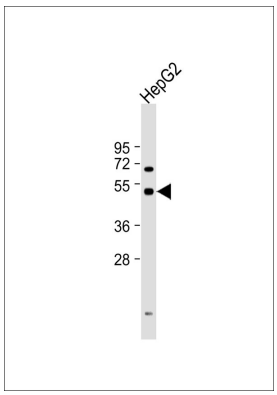
Wu Z.L.,et al.Mol. Pharmacol. 69:2007-2014(2006).
Gomez A.,et al.Mol. Pharmacol. 78:1004-1011(2010).
Eun C.Y.,et al.Toxicol. Res. 26:171-175(2010).

Images



Anti-Cytochrome P450 2W1 Antibody at 1:1000 dilution + HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution. Predicted band size : 54 kDa Blocking/Dilution buffer: 5% NFDM/TBST.