

# CYP2W1 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP7792a

## Product Information

---

Application	IHC-P, WB, E
Primary Accession	<a href="#">Q8TAV3</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB15789
Calculated MW	53844
Antigen Region	7-33

## Additional Information

---

Gene ID	54905
Other Names	Cytochrome P450 2W1, 11414-, CYP11W1, CYP2W1
Target/Specificity	This CYP2W1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 7-33 amino acids from the N-terminal region of human CYP2W1.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CYP2W1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## 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: <a href="#">22591743</a> , PubMed: <a href="#">26936974</a> ). 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.

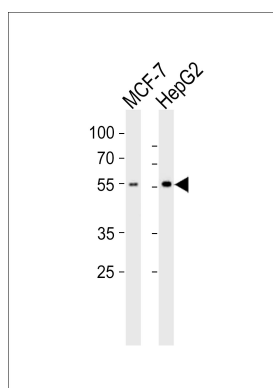
## Background

CYP2W1 is a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids.

## References

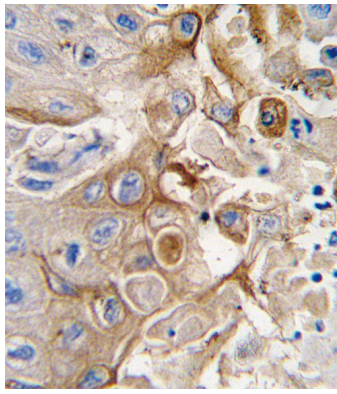
Gomez,A., Pharmacogenomics 8 (10), 1315-1325 (2007)  
Karlgren,M., Biochem. Biophys. Res. Commun. 341 (2), 451-458 (2006)  
Nelson,D.R., Pharmacogenetics 14 (1), 1-18 (2004)

## Images



Western blot analysis of lysates from MCF-7, HepG2 cell line (from left to right), using CYP2W1 Antibody (N-term)(Cat. #AP7792a). AP7792a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.

Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with CYP2W1 antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data



demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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