

# CYP7A1 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP21523a

## Product Information

---

Application	WB, E
Primary Accession	<a href="#">P22680</a>
Reactivity	Human
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB52160
Calculated MW	57661

## Additional Information

---

Gene ID	1581
Other Names	Cholesterol 7-alpha-monooxygenase, CYPVII, Cholesterol 7-alpha-hydroxylase, Cytochrome P450 7A1, CYP7A1, CYP7
Target/Specificity	This CYP7A1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 27-58 amino acids from the N-terminal region of human CYP7A1.
Dilution	WB~~1:1000-1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	CYP7A1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

---

Name	CYP7A1 {ECO:0000303   PubMed:12077124, ECO:0000312   HGNC:HGNC:2651}
Function	A cytochrome P450 monooxygenase involved in the metabolism of endogenous cholesterol and its oxygenated derivatives (oxysterols) (PubMed: <a href="#">11013305</a> , PubMed: <a href="#">12077124</a> , PubMed: <a href="#">19965590</a> , PubMed: <a href="#">21813643</a> , PubMed: <a href="#">2384150</a> ). 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:[11013305](#), PubMed:[12077124](#), PubMed:[19965590](#), PubMed:[21813643](#), PubMed:[2384150](#)). Functions as a critical regulatory enzyme of bile acid biosynthesis and cholesterol homeostasis. Catalyzes the hydroxylation of carbon hydrogen bond at 7-alpha position of cholesterol, a rate-limiting step in cholesterol catabolism and bile acid biosynthesis (PubMed:[12077124](#), PubMed:[19965590](#), PubMed:[2384150](#)). 7-alpha hydroxylates several oxysterols, including 4beta-hydroxycholesterol and 24-hydroxycholesterol (PubMed:[11013305](#), PubMed:[12077124](#)). Catalyzes the oxidation of the 7,8 double bond of 7-dehydrocholesterol and lathosterol with direct and predominant formation of the 7-keto derivatives (PubMed:[21813643](#)).

<b>Cellular Location</b>	Endoplasmic reticulum membrane; Single-pass membrane protein. Microsome membrane; Single-pass membrane protein
<b>Tissue Location</b>	Detected in liver..

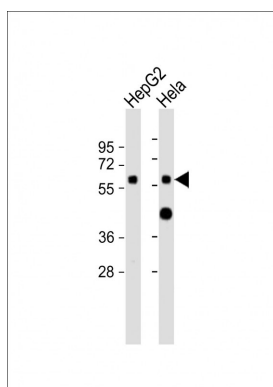
## Background

Catalyzes a rate-limiting step in cholesterol catabolism and bile acid biosynthesis by introducing a hydrophilic moiety at position 7 of cholesterol. Important for cholesterol homeostasis.

## References

Nishimoto M.,et al.Biochim. Biophys. Acta 1172:147-150(1993).  
Noshiro M.,et al.FEBS Lett. 268:137-140(1990).  
Karam W.G.,et al.Biochem. Biophys. Res. Commun. 185:588-595(1992).  
Wang D.P.,et al.Genomics 20:320-323(1994).  
Molowa D.T.,et al.Biochemistry 31:2539-2544(1992).

## Images



All lanes : Anti-CYP7A1 Antibody (N-term) at 1:2000 dilution Lane 1: HepG2 whole cell lysates Lane 2: HeLa 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.

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