

CYP7A1 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21523a

Specification

CYP7A1 Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	P22680
Reactivity	Human
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	57661

CYP7A1 Antibody (N-term) - 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~~1:2000

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.

CYP7A1 Antibody (N-term) - 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:[11013305](#), PubMed:[12077124](#), PubMed:[19965590](#), PubMed:[21813643](#), PubMed:[2384150](#)). 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](#)).

Cellular Location

Endoplasmic reticulum membrane; Single-pass membrane protein. Microsome membrane; Single-pass membrane protein

Tissue Location

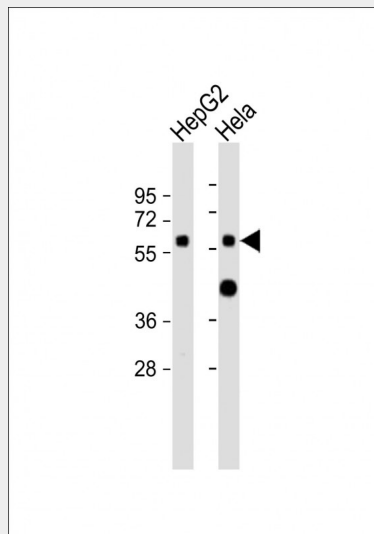
Detected in liver..

CYP7A1 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CYP7A1 Antibody (N-term) - 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.

CYP7A1 Antibody (N-term) - 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.

CYP7A1 Antibody (N-term) - 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).