

## CYP7B1 Polyclonal Antibody Catalog # AP69424

### Specification

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#### CYP7B1 Polyclonal Antibody - Product Information

Application	WB
Primary Accession	<a href="#">O75881</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal

#### CYP7B1 Polyclonal Antibody - Additional Information

Gene ID 9420

##### Other Names

CYP7B1; 25-hydroxycholesterol 7-alpha-hydroxylase; Cytochrome P450 7B1; Oxysterol 7-alpha-hydroxylase

##### Dilution

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000. Not yet tested in other applications.

##### Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

##### Storage Conditions

-20°C

#### CYP7B1 Polyclonal Antibody - Protein Information

**Name** CYP7B1 {ECO:0000303|PubMed:24491228, ECO:0000312|HGNC:HGNC:2652}

##### Function

A cytochrome P450 monooxygenase involved in the metabolism of endogenous oxysterols and steroid hormones, including neurosteroids (PubMed:<a href="http://www.uniprot.org/citations/10588945" target="\_blank">10588945</a>, PubMed:<a href="http://www.uniprot.org/citations/24491228" target="\_blank">24491228</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:<a href="http://www.uniprot.org/citations/10588945" target="\_blank">10588945</a>, PubMed:<a href="http://www.uniprot.org/citations/24491228" target="\_blank">24491228</a>). Catalyzes the hydroxylation of carbon hydrogen bonds of steroids with a preference for 7-alpha position (PubMed:<a href="http://www.uniprot.org/citations/10588945" target="\_blank">10588945</a>, PubMed:<a href="http://www.uniprot.org/citations/24491228" target="\_blank">24491228</a>). Usually metabolizes steroids carrying a hydroxy group at position 3, functioning as a 3- hydroxy steroid 7-alpha hydroxylase (PubMed:<a href="http://www.uniprot.org/citations/24491228" target="\_blank">24491228</a>)

target="\_blank">24491228</a>). Hydroxylates oxysterols, including 25-hydroxycholesterol and (25R)-cholest-5-ene-3 $\beta$ ,26-diol toward 7- $\alpha$  hydroxy derivatives, which may be transported to the liver and converted to bile acids (PubMed:<a href="http://www.uniprot.org/citations/10588945" target="\_blank">10588945</a>, PubMed:<a href="http://www.uniprot.org/citations/9802883" target="\_blank">9802883</a>). Via its product 7- $\alpha$ ,25-dihydroxycholesterol, a ligand for the chemotactic G protein-coupled receptor GPR183/EBI2, regulates B cell migration in germinal centers of lymphoid organs, thus guiding efficient maturation of plasma B cells and overall antigen-specific humoral immune response (By similarity). 7- $\alpha$  hydroxylates neurosteroids, including 3 $\beta$ -hydroxyandrost-5-en-17-one (dehydroepiandrosterone) and pregnenolone, both involved in hippocampus-associated memory and learning (PubMed:<a href="http://www.uniprot.org/citations/24491228" target="\_blank">24491228</a>). Metabolizes androstanoids toward 6- or 7- $\alpha$  hydroxy derivatives (PubMed:<a href="http://www.uniprot.org/citations/24491228" target="\_blank">24491228</a>).

#### Cellular Location

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

#### Tissue Location

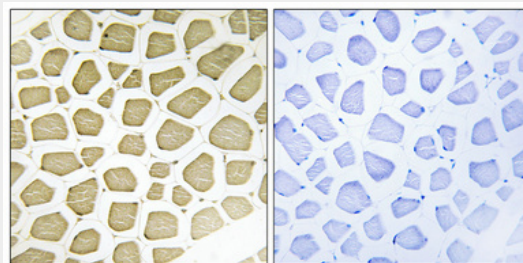
Widely expressed. Expressed in brain, testis, ovary, prostate, liver, colon, kidney, small intestine, thymus and spleen.

### CYP7B1 Polyclonal Antibody - 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](#)

### CYP7B1 Polyclonal Antibody - Images



### CYP7B1 Polyclonal Antibody - Background

Oxysterol 7 $\alpha$ -hydroxylase that mediates formation of 7- $\alpha$ ,25-dihydroxycholesterol (7- $\alpha$ ,25-OHC) from 25-hydroxycholesterol (PubMed:10588945). Plays a key role in cell positioning and movement in lymphoid tissues: 7- $\alpha$ ,25-dihydroxycholesterol (7- $\alpha$ ,25-OHC) acts as a ligand for the G protein-coupled receptor GPR183/EBI2, a chemotactic receptor for a

number of lymphoid cells (By similarity).