

## **CYP7B1 Polyclonal Antibody**

Catalog # AP69424

### **Specification**

# **CYP7B1** Polyclonal Antibody - Product Information

Application WB, IHC-P
Primary Accession O75881
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. IHC-P~ $\sim$ N/A

## **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>). Hydroxylates oxysterols, including 25-hydroxycholesterol and (25R)-cholest-5-ene- 3beta,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 3beta-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**

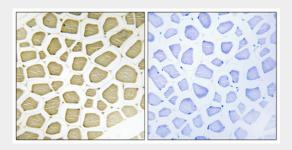
Widely expressed. Expressed in brain, testis, ovary, prostate, liver, colon, kidney, small intestine, thymus and spleen.

### 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 Cytomety
- Cell Culture

## CYP7B1 Polyclonal Antibody - Images



Immunohistochemical analysis of paraffin-embedded Human skeletal muscle. Antibody was diluted at 1:100(4°,overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.

## CYP7B1 Polyclonal Antibody - Background







Oxysterol 7alpha-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).