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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~~N/A

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

Storage Conditions
-20℃

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:10588945, PubMed:24491228). 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:10588945, PubMed:24491228). Catalyzes the hydroxylation of carbon hydrogen bonds of steroids with a preference for 7-alpha position (PubMed:10588945, PubMed:24491228). Usually metabolizes steroids carrying a hydroxy group at position 3, functioning as a 3- hydroxy

steroid 7-alpha hydroxylase (PubMed:24491228). 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:10588945, PubMed:9802883). 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:24491228). Metabolizes androstanoids toward 6- or 7-alpha hydroxy derivatives (PubMed:24491228).

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

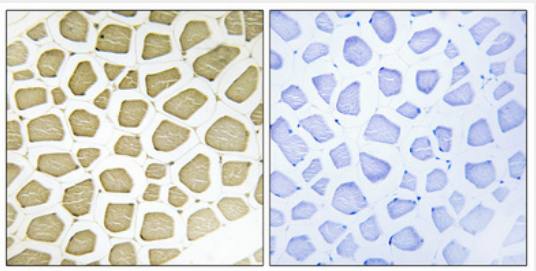
Tissue Location
Widely expressed. Expressed in brain, testis, ovary, prostate, liver, colon, kidney, small intestine, thymus and spleen.

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



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).