10320 Camino Santa Fe, Suite G
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CYP7B1 Antibody (C-Term)

Peptide-affinity purified goat antibody
Catalog # AF2380a

Specification

CYP7B1 Antibody (C-Term) - Product Information

Application	**IHC**
Primary Accession	O75881
Other Accession	NP_004811.1, 9420
Predicted	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**58256**

CYP7B1 Antibody (C-Term) - Additional Information

Gene ID 9420

Other Names
25-hydroxycholesterol 7-alpha-hydroxylase, 1.14.13.100, Cytochrome P450 7B1, Oxysterol 7-alpha-hydroxylase, CYP7B1

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CYP7B1 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

CYP7B1 Antibody (C-Term) - 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:<a

href="http://www.uniprot.org/citations/10588945" target="_blank">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 Antibody (C-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 Cytomety
- Cell Culture

CYP7B1 Antibody (C-Term) - Images

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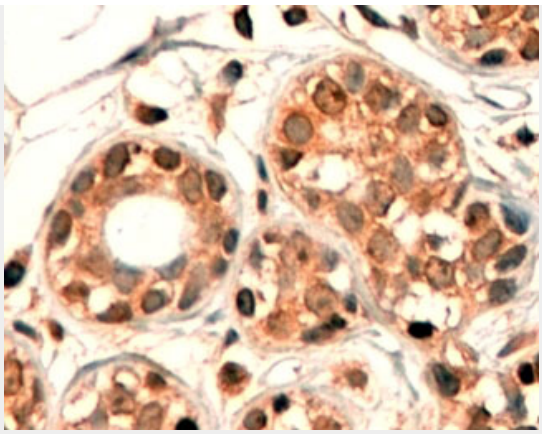

AF2380a (4 µg/ml) staining of paraffin embedded Human Breast. Steamed antigen retrieval with citrate buffer pH 6, HRP-staining.

CYP7B1 Antibody (C-Term) - References

Structure and functions of human oxysterol 7alpha-hydroxylase cDNAs and gene CYP7B1. Wu Z, Martin KO, Javitt NB, Chiang JY. J Lipid Res. 1999 Dec;40(12):2195-203. PMID: 10588945