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CYP8B1 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP8787b

Specification

CYP8B1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q9UNU6

CYP8B1 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 1582

Other Names
7-alpha-hydroxycholest-4-en-3-one 12-alpha-hydroxylase, 7-alpha-hydroxy-4-cholesten-3-one 12-alpha-hydroxylase, CYPVIIIB1, Cytochrome P450 8B1, Sterol 12-alpha-hydroxylase, CYP8B1, CYP12

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8787b was selected from the C-term region of human CYP8B1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CYP8B1 Antibody (C-term) Blocking Peptide - Protein Information

Name CYP8B1 {ECO:0000303|PubMed:10051404, ECO:0000312|HGNC:HGNC:2653}

Function
A cytochrome P450 monooxygenase involved in primary bile acid biosynthesis. Catalyzes the 12alpha-hydroxylation of 7alpha-hydroxy-4- cholesten-3-one, an intermediate metabolite in cholic acid biosynthesis (PubMed:10051404). Controls biliary balance of cholic acid and chenodeoxycholic acid, ultimately regulating the intestinal absorption of dietary lipids (By similarity). 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--hemoprotein reductase) (By similarity).

Cellular Location

Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:O02766}; Single-pass membrane protein. Microsome membrane {ECO:0000250|UniProtKB:O02766}; Single-pass membrane protein

Tissue Location
Liver..

CYP8B1 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

CYP8B1 Antibody (C-term) Blocking Peptide - Images

CYP8B1 Antibody (C-term) Blocking Peptide - Background

CYP8B1 is a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This endoplasmic reticulum membrane protein catalyzes the conversion of 7 alpha-hydroxy-4-cholesten-3-one into 7-alpha,12-alpha-dihydroxy-4-cholesten-3-one. The balance between these two steroids determines the relative amounts of cholic acid and chenodeoxycholic acid both of which are secreted in the bile and affect the solubility of cholesterol. This gene is unique among the cytochrome P450 genes in that it is intronless.

CYP8B1 Antibody (C-term) Blocking Peptide - References

Zhang,M. et.al., J. Biol. Chem. 276 (45), 41690-41699 (2001)Wang,J., et.al., Histochem. Cell Biol. 123 (4-5), 441-446 (2005)