

Cytochrome P450 8B1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP51917

Product Information

Application	WB
Primary Accession	Q9UNU6
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58068

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, CYPVIII B1, Cytochrome P450 8B1, Sterol 12-alpha-hydroxylase, CYP8B1, CYP12
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Cytochrome P450 8B1. The exact sequence is proprietary.
Dilution	WB~1/500 - 1/1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C. Stable for 12 months from date of receipt

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

Background

Involved in bile acid synthesis and is responsible for the conversion of 7 alpha-hydroxy-4-cholesten-3-one into 7 alpha, 12 alpha-dihydroxy-4-cholesten-3-one. Responsible for the balance between formation of cholic acid and chenodeoxycholic acid. Has a rather broad substrate specificity including a number of 7-alpha- hydroxylated C27 steroids.

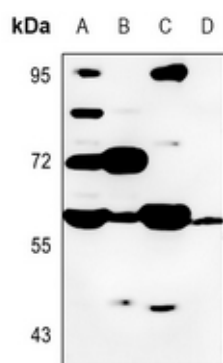
References

Gaafvels M.,et al.Genomics 56:184-196(1999).

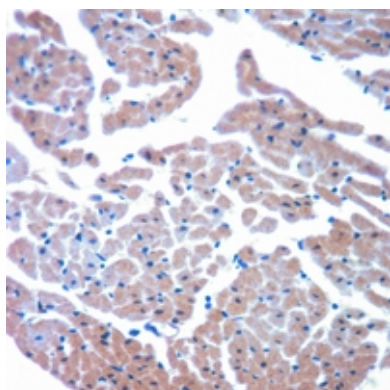
Ota T.,et al.Nat. Genet. 36:40-45(2004).

Muzny D.M.,et al.Nature 440:1194-1198(2006).

Images



Western blot analysis of Cytochrome P450 8B1 expression in mouse liver (A), mouse kidney (B), rat liver (C), rat kidney (D) whole cell lysates.



Immunohistochemical analysis of Cytochrome P450 8B1 staining in rat heart formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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