

CYP7B1 (WW-H9): sc-134309

BACKGROUND

P450 enzymes constitute a family of monooxygenase enzymes that are involved in the metabolism of a wide array of endogenous and xenobiotic compounds including cholesterol. CYP8B1 moderates the ratio of cholic acid over chenodeoxycholic acid to control the solubility of cholesterol. P450 cholesterol 7-hydroxylase, CYP7A1, is the rate limiting enzyme of bile acid synthesis in the liver, and its expression is mediated by the bile acid receptor FXR. CYP27A1 catalyzes vitamin D₃ 25-hydroxylation and is localized to the mitochondria in kidney and liver. CYP7B1 (oxysterol 7- α -hydroxylase) functions as an enzyme in the alternate bile acid synthesis pathway. Specifically, CYP7B1 metabolizes 25- and 27-hydroxycholesterol. The gene encoding human CYP7B1 maps to chromosome 8q21.3. Mutations in the CYP7B1 gene may cause a metabolic defect in bile acid synthesis characterized by elevated urinary bile acid excretion, severe cholestasis, cirrhosis and liver synthetic failure.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CYP7B1 (human) mapping to 8q12.3.

SOURCE

CYP7B1 (WW-H9) is a mouse monoclonal antibody raised against recombinant CYP7B1 protein of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CYP7B1 (WW-H9) is recommended for detection of CYP7B1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CYP7B1 siRNA (h): sc-41492, CYP7B1 shRNA Plasmid (h): sc-41492-SH and CYP7B1 shRNA (h) Lentiviral Particles: sc-41492-V.

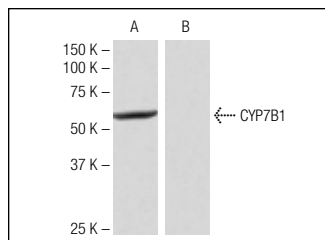
Molecular Weight of CYP7B1: 58 kDa.

Positive Controls: human CYP7B1 transfected 293T whole cell lysate.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



CYP7B1 (WW-H9): sc-134309. Western blot analysis of CYP7B1 expression in human CYP7B1 transfected (A) and non-transfected (B) 293T whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.