**BACKGROUND**

In animals, P450 enzymes serve two major functions: biosynthesis of steroids, fatty acids and bile acids; and the metabolism of endogenous and a wide variety of exogenous substrates, such as toxins and drugs. The four major families involved in drug metabolism are CYP 1, 2, 3 and 4. The hepatic CYP4A enzymes are important fatty acid and prostaglandin omega-hydroxylases that are highly inducible by fibric acid hypolipidemic agents and other peroxisome proliferators. In humans, 4A1, 4A2 and 4A3 have been cloned from liver, kidney and testis and are detected in renal, hepatic and brain microvessels.

**REFERENCES**


**SOURCE**

CYP4A1 (h1) is a mouse monoclonal antibody raised against liver Cytochrome P450 2C11 and 4A1 of rat origin.

**PRODUCT**

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

CYP4A1 (h1) is recommended for detection of CYP4A1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Molecular Weight of CYP4A1: 50 kDa.

Positive Controls: rat kidney extract: sc-2394, mouse liver extract: sc-2256 or rat liver extract: sc-2395.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG HRP-BP: sc-516102 or m-IgG HRP-BP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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**

![Western blot analysis of CYP4A1 expression in rat liver (A) and rat kidney (B) tissue extracts.](image1)

![Western blot analysis of CYP4A1 expression in mouse liver (A) and rat kidney (B) tissue extracts.](image2)

**SELECT PRODUCT CITATIONS**


**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.