SANTA CRUZ BIOTECHNOLOGY, INC.

Oatp2 (A-2): sc-376424

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The organic anion transporting polypeptides, Oatp2 (also designated Slc21a5 and Slco1a4) and OATP-C (also designated LST-1, OATP2, OATP1B1 and SLC21A6), mediate hepatic uptake of cardiac glycosides. The expression of OATP-C is inducible by phenobarbital and pregnenolone-16α-carbonitrile, resulting in the increased capacity of the liver to extract cardiac glycosides from the plasma. Oatp2, which is expressed in liver and brain, helps mediate sodium-independent uptake of the anionic steroid conjugates dehydroepiandrosterone sulfate, estradiol-17-glucuronide and prostaglandin. OATP-C is exclusively expressed in liver and localized to the basolateral hepatocyte membrane. Although OATP-C mRNA levels decrease during pregnancy and increase postpartum, OATP-C protein levels remain relatively constant. Oatp2 transports taurocholic acid, the adrenal androgen dehydroepiandroserone sulfate, thyroid hormone, hydroxymethylglutaryl-CoA reductase inhibitor and pravastatin. Oatp2 and OATP-C are both pravastatin transporters, suggesting that they are responsible for the hepatic uptake of the liver-specific hydroxymethylglutaryl-CoA reductase inhibitor in mouse, rat and human.

CHROMOSOMAL LOCATION

Genetic locus: Slco1a4 (mouse) mapping to 6 G2.

SOURCE

Oatp2 (A-2) is a mouse monoclonal antibody raised against amino acids 611-660 mapping near the C-terminus of Oatp2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Oatp2 (A-2) is available conjugated to agarose (sc-376424 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376424 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376424 PE), fluorescein (sc-376424 FITC), Alexa Fluor® 488 (sc-376424 AF488), Alexa Fluor® 546 (sc-376424 AF546), Alexa Fluor® 594 (sc-376424 AF594) or Alexa Fluor® 647 (sc-376424 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376424 AF680) or Alexa Fluor® 790 (sc-376424 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Oatp2 (A-2) is recommended for detection of Oatp2 of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Oatp2 siRNA (m): sc-42550, Oatp2 shRNA Plasmid (m): sc-42550-SH and Oatp2 shRNA (m) Lentiviral Particles: sc-42550-V.

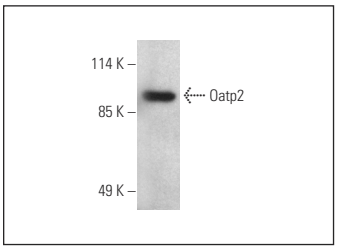
Molecular Weight of Oatp2: 90 kDa.

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

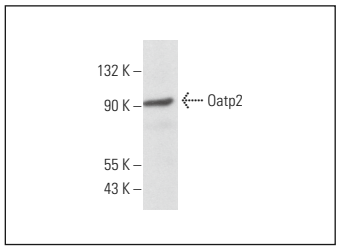
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Oatp2 (A-2): sc-376424. Western blot analysis of Oatp2 expression in mouse liver tissue extract. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



Oatp2 (A-2): sc-376424. Western blot analysis of Oatp2 expression in rat liver tissue extract.

SELECT PRODUCT CITATIONS

1. Sticova, E., et al. 2015. Down-regulation of Oatp1B proteins correlates with hyperbilirubinemia in advanced cholestasis. Int. J. Clin. Exp. Pathol. 8: 5252-5262.
2. Zhang, W., et al. 2017. Rifampicin-induced injury in Hep G2 cells is alleviated by TUDCA via increasing bile acid transporters expression and enhancing the Nrf2-mediated adaptive response. Free Radic. Biol. Med. 112: 24-35.
3. Liu, L., et al. 2017. Hepatic Tmem30a deficiency causes intrahepatic cholestasis by impairing expression and localization of bile salt transporters. Am. J. Pathol. 187: 2775-2787.
4. Afroz, F., et al. 2018. Evidence that decreased expression of sinusoidal bile acid transporters accounts for the inhibition by rapamycin of bile flow recovery following liver ischemia. Eur. J. Pharmacol. 838: 91-106.
5. Men, W.J., et al. 2022. The changes of hepatic bile acid synthesis and transport and bile acids profiles in isopsoralen-induced liver injury C57BL/6J mice. Pharm. Biol. 60: 1701-1709.

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.