

Oatp2 (M-50): sc-33610

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-16 α -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 dehydroepiandrosterone 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.

REFERENCES

1. Hsiang, B., et al. 1999. A novel human hepatic organic anion transporting polypeptide (OATP2). *J. Biol. Chem.* 274: 37161-37168.
2. Konig, J., et al. 2000. Localization and genomic organization of a new hepatocellular organic anion transporting polypeptide. *J. Biol. Chem.* 275: 23161-23168.
3. Cattori, V., et al. 2000. Identification of organic anion transporting polypeptide 4 (Oatp4) as a major full-length isoform of the liver-specific transporter-1 (rlst-1) in rat liver. *FEBS Lett.* 474: 242-245.
4. Konig, J., et al. 2000. A novel human organic anion transporting polypeptide localized to the basolateral hepatocyte membrane. *Am. J. Physiol. Gastrointest. Liver Physiol.* 278: 156-164.
5. Cao, J., et al. 2001. Differential regulation of hepatic bile salt and organic anion transporters in pregnant and postpartum rats and the role of prolactin. *Hepatology* 33: 140-147.
6. Rausch-Derra, L.C., et al. 2001. Differential effects of microsomal enzyme-inducing chemicals on the hepatic expression of rat organic anion transporters, OATP1 and OATP2. *Hepatology* 33: 1469-1478.

CHROMOSOMAL LOCATION

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

SOURCE

Oatp2 (M-50) is a rabbit polyclonal antibody raised against amino acids 611-660 mapping near the C-terminus of Oatp2 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Oatp2 (M-50) is recommended for detection of Oatp2 of mouse origin and, to a lesser extent OATP and OATK family members of mouse and rat 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)], 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).

Molecular Weight of Oatp2: 90 kDa.

Positive Controls: SW480 cell lysate: sc-2219.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), 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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **Oatp2 (A-2): sc-376424**, our highly recommended monoclonal alternative to Oatp2 (M-50).