

Oatp4 (D-12): sc-376904

BACKGROUND

The organic anion transporter family of proteins mediate hepatic uptake of cardiac glycosides. Oatp4, also known as Slco1b2 (solute carrier organic anion transporter family member 1B2), Slc21a10 (solute carrier family 21 member 10) or LST-1 (liver-specific organic anion transporter 1), is a 689 amino acid member of the organic anion transporter protein family. As a multi-pass membrane protein, Oatp4 mediates the Na⁺ transport of bromosulphophthalein, taurocholate and other organic anions. Oatp4 is also thought to transport steroid conjugates, such as 17-β-glucuronosyl estradiol, dehydroepiandrosterone sulfate, estrone-3-sulfate and prostaglandin E2. Oatp4 is liver-specific and expressed as three isoforms produced by alternative splicing.

CHROMOSOMAL LOCATION

Genetic locus: Slco1b2 (mouse) mapping to 6 G2.

SOURCE

Oatp4 (D-12) is a mouse monoclonal antibody raised against amino acids 571-652 mapping at the C-terminus of Oatp4 of rat origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Oatp4 (D-12) is available conjugated to agarose (sc-376904 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376904 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376904 PE), fluorescein (sc-376904 FITC), Alexa Fluor® 488 (sc-376904 AF488), Alexa Fluor® 546 (sc-376904 AF546), Alexa Fluor® 594 (sc-376904 AF594) or Alexa Fluor® 647 (sc-376904 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376904 AF680) or Alexa Fluor® 790 (sc-376904 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Oatp4 (D-12) is recommended for detection of Oatp4 isoforms 1, 2 and 3 of mouse, rat and human 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 Oatp4 siRNA (m): sc-61252, Oatp4 shRNA Plasmid (m): sc-61252-SH and Oatp4 shRNA (m) Lentiviral Particles: sc-61252-V.

Molecular Weight (predicted) of Oatp4: 77 kDa.

Molecular Weight (observed) of Oatp4: 98-107 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, rat liver extract: sc-2395 or c4 whole cell lysate: sc-364186.

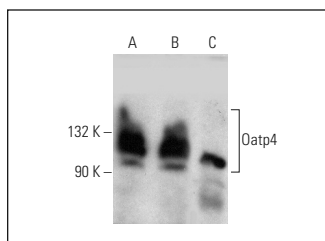
STORAGE

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

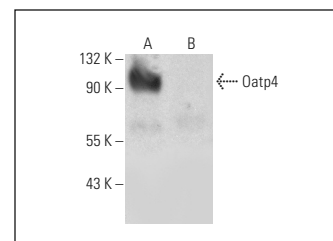
RESEARCH USE

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

DATA



Oatp4 (D-12): sc-376904. Western blot analysis of Oatp4 expression in Hep G2 (A), PC-3 (B) and c4 (C) whole cell lysates.



Oatp4 (D-12): sc-376904. Western blot analysis of Oatp4 expression in rat liver (A) and rat heart (B) tissue extracts. Please note lack of reactivity with rat heart in lane B.

SELECT PRODUCT CITATIONS

- Clarke, J.D., et al. 2014. Experimental nonalcoholic steatohepatitis increases exposure to simvastatin hydroxy acid by decreasing hepatic organic anion transporting polypeptide expression. *J. Pharmacol. Exp. Ther.* 348: 452-458.
- Liu, Y., et al. 2016. Impact of quercetin-induced changes in drug-metabolizing enzyme and transporter expression on the pharmacokinetics of cyclosporine in rats. *Mol. Med. Rep.* 14: 3073-3085.
- Yang, T., et al. 2018. Quercetin-3-O-β-D-glucoside decreases the bioavailability of cyclosporin A through regulation of drug metabolizing enzymes, transporters and nuclear receptors in rats. *Mol. Med. Rep.* 18: 2599-2612.
- Clarke, J.D., et al. 2019. Nonalcoholic fatty liver disease alters microcystin-LR toxicokinetics and acute toxicity. *Toxicol.* 162: 1-8.
- Ma, X., et al. 2020. Characterization of organic anion transporting polypeptide 1b2 knockout rats generated by CRISPR/Cas9: a novel model for drug transport and hyperbilirubinemia disease. *Acta Pharm. Sin. B* 10: 850-860.
- Arman, T., et al. 2021. MCLR-elicited hepatic fibrosis and carcinogenic gene expression changes persist in rats with diet-induced nonalcoholic steatohepatitis through a 4-week recovery period. *Toxicology* 464: 153021.
- Liang, R., et al. 2022. Evodiamine decreased the systemic exposure of pravastatin in non-alcoholic steatohepatitis rats due to the up-regulation of hepatic OATPs. *Pharm. Biol.* 60: 359-373.
- Men, W.J., et al. 2022. The changes of hepatic bile acid synthesis and transport and bile acids profiles in isoporsoralen-induced liver injury C57BL/6J mice. *Pharm. Biol.* 60: 1701-1709.

PROTOCOLS

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

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