

Oatp4 (R-82): sc-134461

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.

REFERENCES

1. Kakyo, M., et al. 1999. Molecular characterization and functional regulation of a novel rat liver-specific organic anion transporter rlst-1. *Gastroenterology* 117: 770-775.
2. 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: 242-5.
3. Choudhuri, S., et al. 2000. Cloning of the full-length coding sequence of rat liver-specific organic anion transporter-1 (rlst-1) and a splice variant and partial characterization of the rat lst-1 gene. *Biochem. Biophys. Res. Commun.* 274: 79-86.
4. Cattori, V., et al. 2001. Localization of organic anion transporting polypeptide 4 (Oatp4) in rat liver and comparison of its substrate specificity with Oatp1, Oatp2 and Oatp3. *Pflügers Arch.* 443: 188-95.
5. Li, N., et al. 2004. Down-regulation of mouse organic anion-transporting polypeptide 4 (Oatp4; Oatp1b2; Slc21a10) mRNA by lipopolysaccharide through the toll-like receptor 4 (TLR4). *Drug Metab. Dispos.* 32: 1265-1271.
6. Li, N., et al. 2004. Role of liver-enriched transcription factors in the down-regulation of organic anion transporting polypeptide 4 (Oatp4; Oatp1b2; slc21a10) by lipopolysaccharide. *Mol. Pharmacol.* 66: 694-701.

CHROMOSOMAL LOCATION

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

SOURCE

Oatp4 (R-82) is a rabbit polyclonal antibody raised against amino acids 571-652 mapping at the C-terminus of Oatp4 of rat origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

Oatp4 (R-82) is recommended for detection of Oatp4 isoforms 1, 2 and 3 of rat and, to a lesser extent, mouse origin by Western Blotting (starting dilution 1:200, 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.

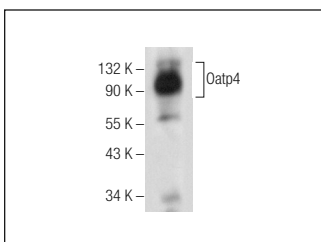
Molecular Weight (observed) of Oatp4: 98-107 kDa.

Positive Controls: rat liver extract: sc-2395.

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.

DATA



Oatp4 (R-82): sc-134461. Western blot analysis of Oatp4 expression in rat liver tissue extract.

RESEARCH USE

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

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Try **Oatp4 (D-12): sc-376904**, our highly recommended monoclonal alternative to Oatp4 (R-82).