

# OATP-C (A-3): sc-271157

## BACKGROUND

The organic anion transporting polypeptides, OATP-A (also designated OATP1, OATP1A2 and SLC21A3) and OATP-C (also designated OATP2, SLC21A6 and LST1), mediate hepatic uptake of cardiac glycosides. The expression of OATP-C, but not OATP-A, is inducible by phenobarbital and pregnenolone-16 $\alpha$ -carbonitrile, resulting in the increased capacity of the liver to extract cardiac glycosides from the plasma. OATP-A is expressed in liver and kidney and 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 is localized to the basolateral hepatocyte membrane. Although OATP-C mRNA levels decrease during pregnancy and increase postpartum, OATP-C protein levels remain relatively constant. OATP-C transports taurocholic acid, the adrenal androgen dehydroepiandrosterone sulfate, thyroid hormone, hydroxymethylglutaryl-CoA reductase inhibitor and pravastatin. OATP-C is therefore a novel organic anion transport protein that has overlapping but not identical substrate specificities with other subtypes of OATP. OATP-A 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

- Hsiang, B., et al. 1999. A novel human hepatic organic anion transporting polypeptide (OATP2). *J. Biol. Chem.* 274: 37161-37168.
- Konig, J., et al. 2000. Localization and genomic organization of a new hepatocellular organic anion transporting polypeptide. *J. Biol. Chem.* 275: 23161-23168.
- 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.

## CHROMOSOMAL LOCATION

Genetic locus: SLC01B1 (human) mapping to 12p12.2; Slco1a4 (mouse) mapping to 6 G2.

## SOURCE

OATP-C (A-3) is a mouse monoclonal antibody raised against amino acids 606-665 mapping near the C-terminus of OATP-C of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

OATP-C (A-3) is available conjugated to agarose (sc-271157 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271157 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271157 PE), fluorescein (sc-271157 FITC), Alexa Fluor<sup>®</sup> 488 (sc-271157 AF488), Alexa Fluor<sup>®</sup> 546 (sc-271157 AF546), Alexa Fluor<sup>®</sup> 594 (sc-271157 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-271157 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-271157 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-271157 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

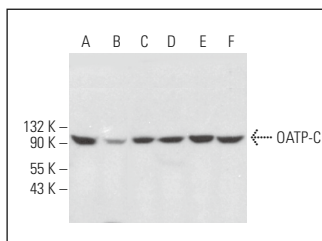
OATP-C (A-3) is recommended for detection of OATP-C of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with mouse or rat Oatp2.

Suitable for use as control antibody for OATP-C siRNA (h): sc-42549, Oatp2 siRNA (m): sc-42550, OATP-C shRNA Plasmid (h): sc-42549-SH, Oatp2 shRNA Plasmid (m): sc-42550-SH, OATP-C shRNA (h) Lentiviral Particles: sc-42549-V and Oatp2 shRNA (m) Lentiviral Particles: sc-42550-V.

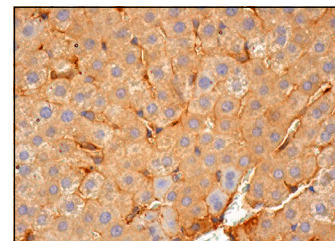
Molecular Weight of OATP-C: 90 kDa.

Positive Controls: F9 cell lysate: sc-2245, NIH/3T3 whole cell lysate: sc-2210 or PC-12 cell lysate: sc-2250.

## DATA



OATP-C (A-3): sc-271157. Western blot analysis of OATP-C expression in Hep G2 (A), F9 (B), NIH/3T3 (C), c4 (D), AT3B-1 (E) and PC-12 (F) whole cell lysates.



OATP-C (A-3): sc-271157. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing membrane and cytoplasmic staining of hepatocytes.

## SELECT PRODUCT CITATIONS

- Yosef, N. and Ubogu, E.E. 2013. An immortalized human blood-nerve barrier endothelial cell line for *in vitro* permeability studies. *Cell. Mol. Neurobiol.* 33: 175-186.
- Zhang, H., et al. 2023. A hepatocyte-targeting nanoparticle for enhanced hepatobiliary magnetic resonance imaging. *Nat. Biomed. Eng.* 7: 221-235.

## 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](http://www.scbt.com) for detailed protocols and support products.

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