SANTA CRUZ BIOTECHNOLOGY, INC.

OATP-F (G-5): sc-398883

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The organic anion transporter family of proteins mediate hepatic uptake of cardiac glycosides. OATP-F (organic anion transporter F), also known as SLCO1C1 (solute carrier organic anion transporter family member 1C1) or SLC21A14 (solute carrier family 21 member 14), is a 712 amino acid member of the organic anion transporter protein family. As a multi-pass membrane protein, OATP-F mediates the Na^+-independent, high affinity transport of the thyroid hormones thyroxine (T4) and rT3 and other organic anions. OATP-F is also thought to transport estrone-3-sulfate and sulfobromophthalein (BSP), triiodothyronine (T3) and 17-β-glucuronosyl estradiol at a much lower efficiency. OATP-F is expressed highly in Leydig cells in testis and in brain.

REFERENCES

1. Pizzagalli, F., et al. 2002. Identification of a novel human organic anion transporting polypeptide as a high affinity thyroxine transporter. Mol. Endocrinol. 16: 2283-2296.
2. Cai, S.Y., et al. 2002. An evolutionarily ancient Oatp: insights into conserved functional domains of these proteins. Am. J. Physiol. Gastrointest. Liver Physiol. 282: G702-G710.
3. Kato, Y., et al. 2004. Screening of the interaction between xenobiotic transporters and PDZ proteins. Pharm. Res. 21: 1886-1894.
4. Funakoshi, S., et al. 2005. Role of organic anion transporting polypeptide and β-methyldigoxin in rats. J. Pharm. Sci. 94: 1196-1203.
5. van der Deure, W.M., et al. 2008. Thyroid hormone transport and metabolism by organic anion transporter 1C1 and consequences of genetic variation. Endocrinology 149: 5307-5314.

CHROMOSOMAL LOCATION

Genetic locus: SLCO1C1 (human) mapping to 12p12.2; Slco1c1 (mouse) mapping to 6 G2.

SOURCE

OATP-F (G-5) is a mouse monoclonal antibody raised against amino acids 1-71 mapping at the N-terminus of OATP-F 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.

OATP-F (G-5) is available conjugated to agarose (sc-398883 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398883 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398883 PE), fluorescein (sc-398883 FITC), Alexa Fluor® 488 (sc-398883 AF488), Alexa Fluor® 546 (sc-398883 AF546), Alexa Fluor® 594 (sc-398883 AF594) or Alexa Fluor® 647 (sc-398883 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398883 AF680) or Alexa Fluor® 790 (sc-398883 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

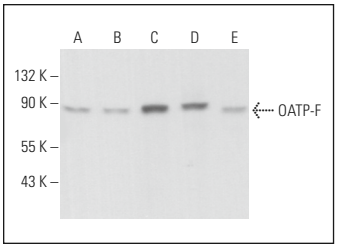
OATP-F (G-5) is recommended for detection of OATP-F of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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 OATP-F siRNA (h): sc-106823, OATP-F siRNA (m): sc-106987, OATP-F shRNA Plasmid (h): sc-106823-SH, OATP-F shRNA Plasmid (m): sc-106987-SH, OATP-F shRNA (h) Lentiviral Particles: sc-106823-V and OATP-F shRNA (m) Lentiviral Particles: sc-106987-V.

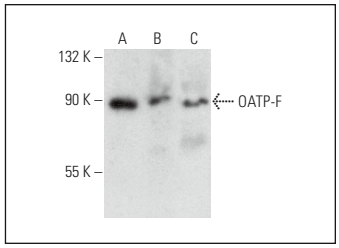
Molecular Weight of OATP-F: 79 kDa.

Positive Controls: SJRH30 cell lysate: sc-2287, HeLa whole cell lysate: sc-2200 or mouse brain extract: sc-2253.

DATA



OATP-F (G-5): sc-398883. Western blot analysis of OATP-F expression in SJRH30 (**A**) and HeLa (**B**) whole cell lysates and human cerebral cortex (**C**), mouse brain (**D**) and rat brain (**E**) tissue extracts.



OATP-F (G-5): sc-398883. Western blot analysis of OATP-F expression in rat brain (**A**), mouse brain (**B**) and mouse testis (**C**) tissue extracts.

SELECT PRODUCT CITATIONS

1. Wang, Y., et al. 2023. Thyroid hormone transporters MCT8 and OATP1C1 are expressed in pyramidal neurons and interneurons in the adult motor cortex of human and macaque brain. Int. J. Mol. Sci. 24: 3207.
2. Wang, T., et al. 2023. Thyroid hormone transporters MCT8 and OATP1C1 are expressed in projection neurons and interneurons of basal ganglia and motor thalamus in the adult human and macaque brains. Int. J. Mol. Sci. 24: 9643.

STORAGE

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

PROTOCOLS

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