SANTA CRUZ BIOTECHNOLOGY, INC.

OATP-F (H-70): sc-134801

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.
6. Roberts, L.M., et al. 2008. Expression of the thyroid hormone transporters monocarboxylate transporter-8 (SLC16A2) and organic ion transporter-14 (SLCO1C1) at the blood-brain barrier. Endocrinology 149: 6251-6261.
7. Franke, R.M., et al. 2009. Pharmacogenetics of the organic anion transporting polypeptide 1A2. Pharmacogenomics 10: 339-344.
8. Westholm, D.E., et al. 2009. Competitive inhibition of organic anion transporting polypeptide 1c1-mediated thyroxine transport by the fenamate class of nonsteroidal antiinflammatory drugs. Endocrinology 150: 1025-1032.

CHROMOSOMAL LOCATION

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

SOURCE

OATP-F (H-70) is a rabbit polyclonal antibody raised against amino acids 1-70 mapping at the N-terminus of OATP-F of human origin.

PRODUCT

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

APPLICATIONS

OATP-F (H-70) is recommended for detection of OATP-F of human and, to a lesser extent, mouse and rat 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).

OATP-F (H-70) is also recommended for detection of OATP-F in additional species, including equine, canine, bovine and porcine.

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.

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.