

OATP-H (D-12): sc-136774

BACKGROUND

The organic anion transporter family of proteins mediate hepatic uptake of cardiac glycosides. OATP-H (organic anion transporter F), also known as SLC04C1 (solute carrier organic anion transporter family member 4C1), OATPX or SLC21A14 (solute carrier family 21 member 20), is a 724 amino acid member of the organic anion transporter protein family. As a multi-pass membrane protein, OATP-H mediates the Na⁺-independent, high affinity transport of pharmacological substances such as thyroxine, digoxin, methotrexate, cAMP and ouabain. OATP-H is also thought to be involved in the uptake of the dipeptidyl peptidase-4 inhibitor sitagliptin. OATP-H is expressed highly in kidney, with lower expression found in fetal kidney and liver.

REFERENCES

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- Mikkaichi, T., et al. 2004. Isolation and characterization of a digoxin transporter and its rat homologue expressed in the kidney. *Proc. Natl. Acad. Sci. USA* 101: 3569-3574.
- Online Mendelian Inheritance in Man, OMIM[™]. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 609013. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Hagenbuch, B. 2007. Cellular entry of thyroid hormones by organic anion transporting polypeptides. *Best Pract. Res. Clin. Endocrinol. Metab.* 21: 209-221.
- Chu, X.Y., et al. 2007. Transport of the dipeptidyl peptidase-4 inhibitor sitagliptin by human organic anion transporter 3, organic anion transporting polypeptide 4C1 and multidrug resistance P-glycoprotein. *J. Pharmacol. Exp. Ther.* 321: 673-683.

CHROMOSOMAL LOCATION

Genetic locus: SLC04C1 (human) mapping to 5q21.1; Slco4c1 (mouse) mapping to 1 D.

SOURCE

OATP-H (D-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of OATP-H of human origin.

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 or our catalog for detailed protocols and support products.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136774 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OATP-H (D-12) is recommended for detection of OATP-H of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other Oatp family members.

OATP-H (D-12) is also recommended for detection of OATP-H in additional species, including bovine and porcine.

Suitable for use as control antibody for OATP-H siRNA (h): sc-92053, OATP-H siRNA (m): sc-150154, OATP-H shRNA Plasmid (h): sc-92053-SH, OATP-H shRNA Plasmid (m): sc-150154-SH, OATP-H shRNA (h) Lentiviral Particles: sc-92053-V and OATP-H shRNA (m) Lentiviral Particles: sc-150154-V.

Molecular Weight of OATP-H: 79 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214 or mouse kidney extract: sc-2255.

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) 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.

RESEARCH USE

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