

OATP-H (E-13): sc-136775

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

- Hagenbuch, B. and Meier, P.J. 2003. The superfamily of organic anion transporting polypeptides. *Biochim. Biophys. Acta* 1609: 1-18.
- Hagenbuch, B. and Meier, P.J. 2004. Organic anion transporting polypeptides of the OATP/SLC21 family: phylogenetic classification as OATP/SLCO superfamily, new nomenclature and molecular/functional properties. *Pflugers Arch.* 447: 653-665.
- 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 (E-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an extracellular domain of OATP-H of human origin.

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-136775 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

OATP-H (E-13) 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), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 (E-13) is also recommended for detection of OATP-H in additional species, including canine, 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.

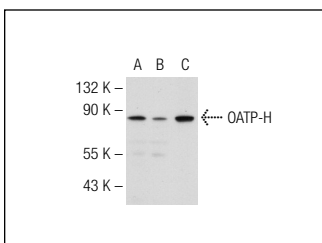
Molecular Weight of OATP-H: 79 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, NRK whole cell lysate: sc-364197 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) 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



OATP-H (E-13): sc-136775. Western blot analysis of OATP-H expression in KNRK (A) and NRK (B) whole cell lysates and mouse kidney tissue extract (C).

SELECT PRODUCT CITATIONS

- Kleberg, K., et al. 2012. Transporter function and cyclic AMP turnover in normal colonic mucosa from patients with and without colorectal neoplasia. *BMC Gastroenterol.* 12: 78.

STORAGE

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