SANTA CRUZ BIOTECHNOLOGY, INC.

OATP-E (H-145): sc-134866

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The organic anion transporter family of proteins mediate hepatic uptake of cardiac glycosides. OATP-E (organic anion transporter E), also known as SLCO4A1 (solute carrier organic anion transporter family member 4A1), SLC21A12 (solute carrier family 21 member 12) or POAT, is a 722 amino acid member of the organic anion transporter protein family. As a multi-pass membrane protein, OATP-E mediates the Na^+-independent transport of estrone-3-sulfate, taurocholate and the thyroid hormones T3 (triiodo-L-thyronine), T4 (thyroxine) and rT3. OATP-E is ubiquitously expressed except in leukocytes and spleen. OATP-E is expressed as four isoforms produced by alternative splicing events.

REFERENCES

1. Tamai, I., et al. 2000. Molecular identification and characterization of novel members of the human organic anion transporter (OATP) family. Biochem. Biophys. Res. Commun. 273: 251-260.
2. Fujiwara, K., et al. 2001. Identification of thyroid hormone transporters in humans: different molecules are involved in a tissue-specific manner. Endocrinology 142: 2005-2012.
3. Ito, A., et al. 2003 Distribution of rat organic anion transporting polypeptide-E (OATP-E) in the rat eye. Invest. Ophthalmol. Vis. Sci. 44: 4877-4884.
4. Sato, K., et al. 2003. Expression of organic anion transporting polypeptide E (OATP-E) in human placenta. Placenta 24: 144-148.
5. Nozawa, T., et al. 2004. Involvement of estrone-3-sulfate transporters in proliferation of hormone-dependent breast cancer cells. J. Pharmacol. Exp. Ther. 311: 1032-1037.
6. Wang, P., et al. 2005. Interaction with PDZK1 is required for expression of organic anion transporting protein 1A1 on the hepatocyte surface. J. Biol. Chem. 280: 30143-30149.
7. Sai, Y., et al. 2006. Predominant contribution of organic anion transporting polypeptide OATP-B (OATP2B1) to apical uptake of estrone-3-sulfate by human intestinal Caco-2 cells. Drug Metab. Dispos. 34: 1423-1431.

CHROMOSOMAL LOCATION

Genetic locus: SLCO4A1 (human) mapping to 20q13.33.

SOURCE

OATP-E (H-145) is a rabbit polyclonal antibody raised against amino acids 1-145 mapping at the N-terminus of OATP-E 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.

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.

APPLICATIONS

OATP-E (H-145) is recommended for detection of all isoforms of OATP-E of human 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), 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).

Suitable for use as control antibody for OATP-E siRNA (h): sc-61247, OATP-E shRNA Plasmid (h): sc-61247-SH and OATP-E shRNA (h) Lentiviral Particles: sc-61247-V.

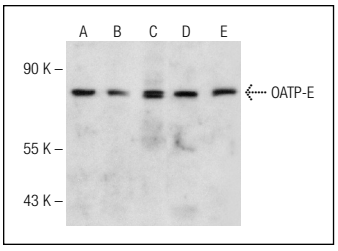
Molecular Weight of OATP-E: 68 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, JAR cell lysate: sc-2276 or A549 cell lysate: sc-2413.

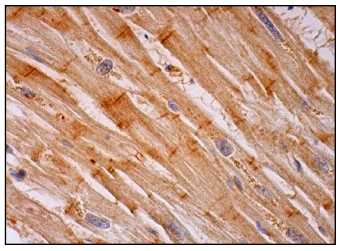
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



OATP-E (H-145): sc-134866. Western blot analysis of OATP-E expression in JAR (**A**), A549 (**B**), Y79 (**C**), JEG-3 (**D**) and HeLa (**E**) whole cell lysates.



OATP-E (H-145): sc-134866. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing intercalated disc and cytoplasmic staining of myocytes.

PROTOCOLS

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