

OATP-E (E-19): sc-51167

BACKGROUND

The organic anion transporter family of proteins includes OATP1, OATP2, OATP3, OATP4, OATP-E, Oatp-F and OATP8. OATP1 and OATP2 mediate hepatic uptake of cardiac glycosides and are both pravastatin transporters, suggesting that they are responsible for the hepatic uptake of the liver-specific hydroxymethylglutaryl-CoA reductase inhibitor in mouse, rat and human. The integral multi-pass membrane proteins OATP3, OATP4, OATP-E, Oatp-F and OATP8 (also designated SLC21A7, SLC21A10, SLC04A1 and SLC01B3, respectively) mediate the NA⁺-independent transport of organic anions such as taurocholate, leukotriene C4, thyroid hormones T3 and T4 dehydroepian-drosterone sulfate (DHEAS) and methotrexate during the absorption of bile acids in the liver. Oatp-E exists in four isoforms and demonstrates nearly ubiquitous expression, the exceptions being spleen tissue and leukocytes.

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. 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* (mouse) mapping to 2 H4.

SOURCE

OATP-E (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of OATP-E of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-51167 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

OATP-E (E-19) is recommended for detection of all isoforms of OATP-E of 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-E (E-19) is also recommended for detection of all isoforms of OATP-E in additional species, including equine.

Suitable for use as control antibody for OATP-E siRNA (m): sc-61248, OATP-E shRNA Plasmid (m): sc-61248-SH and OATP-E shRNA (m) Lentiviral Particles: sc-61248-V.

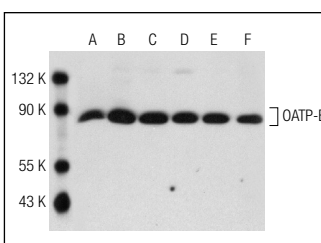
Molecular Weight of OATP-E: 68 kDa.

Positive Controls: WEHI-3 cell lysate: sc-3815, EOC 20 whole cell lysate or AMJ2-C8 whole cell lysate.

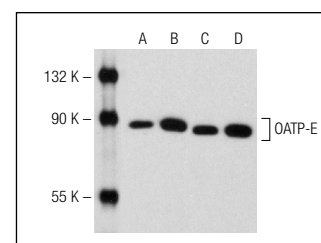
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



OATP-E (E-19): sc-51167. Western blot analysis of OATP-E expression in I-11.15 (A), EOC 20 (B), WEHI-3 (C), AMJ2-C8 (D), MH-S (E) and PMJ2-PC1 (F) whole cell lysates.



OATP-E (E-19): sc-51167. Western blot analysis of OATP-E expression in NIH/3T3 (A), RPE-J (B), RAW 264.7 (C) and EOC 20 (D) whole cell lysates.

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.