

# OATP-E (N-20): sc-51169

## 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  $\text{NA}^+$ -independent transport of organic anions such as taurocholate, leukotriene C4, thyroid hormones T3 and T4 dehydroepiandrosterone 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.

## CHROMOSOMAL LOCATION

Genetic locus: SLC04A1 (human) mapping to 20q13.33.

## SOURCE

OATP-E (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of OATP-E of human origin.

## PRODUCT

Each vial contains 200  $\mu\text{g}$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-51169 P, (100  $\mu\text{g}$  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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

OATP-E (N-20) 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  $\mu\text{g}$  per 100-500  $\mu\text{g}$  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).

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.

## 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.

## SELECT PRODUCT CITATIONS

1. 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.