

OAT2 (C-12): sc-132388

BACKGROUND

The organic anion transporter (OAT) family of proteins is comprised of OAT1 (SLC22A6), OAT2 (SLC22A7), OAT3 (SLC22A8), OAT4 (SLC22A11), OAT5 (SLC22A19), OAT6 (SLC22A20) and URAT1 (SLC22A12). The OAT family mediates the absorption, distribution and excretion of endogenous metabolites, such as urate and acidic neurotransmitter metabolites, as well as a multitude of exogenous compounds, including antibiotics, antihypertensives, antivirals, anti-inflammatory drugs, diuretics and uricosurics. Members of the OAT family are mainly located in kidney with some specific members also being expressed in liver, placenta and brain. Disruption of OAT function in any of these organs may lead to renal, hepatic, neurological and fetal toxicity and diseases. OAT2 is highly expressed in liver, but also shows expression in kidney. OAT2 is a multi-specific exchanger that has been shown to mediate the transport of propionate, bumetanide, estrone sulfate, glutarate, dehydroepiandrosterone sulfate, allopurinol, prostaglandin E2, 5-fluorouracil, paclitaxel and L-ascorbic acid. The OAT2 isoform also displays a sex- and species-related differential expression with a greater expression in females due to a strong androgen inhibition and weak estrogen and progesterone stimulation.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SLC22A7 (human) mapping to 6p21.1; Slc22a7 (mouse) mapping to 17 C.

SOURCE

OAT2 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of OAT2 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.

Blocking peptide available for competition studies, sc-132388 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OAT2 (C-12) is recommended for detection of OAT2 isoforms 1, 2, 3 and 4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other OAT family members.

OAT2 (C-12) is also recommended for detection of OAT2 isoforms 1, 2, 3 and 4 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for OAT2 siRNA (h): sc-95603, OAT2 siRNA (m): sc-150150, OAT2 shRNA Plasmid (h): sc-95603-SH, OAT2 shRNA Plasmid (m): sc-150150-SH, OAT2 shRNA (h) Lentiviral Particles: sc-95603-V and OAT2 shRNA (m) Lentiviral Particles: sc-150150-V.

Molecular Weight of OAT2: 66 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) 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.

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 or our catalog for detailed protocols and support products.