

OAT3 (H-44): sc-98807

BACKGROUND

The organic anion transporter (OAT) family of proteins mediate the secretion of exogenous and endogenous metabolites from tissues throughout the body. OAT1 (organic anion transporter 1), a 563 amino acid protein, and OAT3 (organic anion transporter 3), a 542 amino acid protein, are 2 members of the OAT family and are highly expressed in kidneys. Localized specifically to the basolateral membrane, OAT1 and OAT3 are involved in the elimination of toxic organic anions, such as benzylpenicillin and cimetidine, from proximal renal tubules. Via their ability to remove anions from renal tissues, OAT1 and OAT3 are able to regulate the amount of toxins within the kidneys. Additionally, OAT1 functions as an organic anion exchanger that couples the uptake of one organic anion molecule with the efflux of one endogenous dicarboxylic acid molecule, such as ketoglutarate. Four isoforms of OAT1 and three isoforms of OAT3 are expressed due to alternative splicing events.

REFERENCES

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- Race, J.E., et al. 1999. Molecular cloning and characterization of two novel human renal organic anion transporters (hOAT1 and hOAT3). *Biochem. Biophys. Res. Commun.* 255: 508-514.
- Bahn, A., et al. 2000. Genomic structure and *in vivo* expression of the human organic anion transporter 1 (hOAT1) gene. *Biochem. Biophys. Res. Commun.* 275: 623-630.
- Sun, W., et al. 2001. Isolation of a family of organic anion transporters from human liver and kidney. *Biochem. Biophys. Res. Commun.* 283: 417-422.
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- Chen, J., et al. 2008. Adaptive responses of renal organic anion transporter 3 (OAT3) during cholestasis. *Am. J. Physiol. Renal Physiol.* 295: F247-F252.

CHROMOSOMAL LOCATION

Genetic locus: SLC22A8 (human) mapping to 11q12.3; Slc22a8 (mouse) mapping to 19 A.

SOURCE

OAT3 (H-44) is a rabbit polyclonal antibody raised against amino acids 199-242 mapping within an internal region of OAT3 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.

APPLICATIONS

OAT3 (H-44) is recommended for detection of OAT3 of mouse, rat and 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, 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).

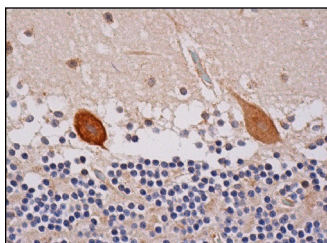
Suitable for use as control antibody for OAT3 siRNA (h): sc-96554, OAT3 siRNA (m): sc-150151, OAT3 shRNA Plasmid (h): sc-96554-SH, OAT3 shRNA Plasmid (m): sc-150151-SH, OAT3 shRNA (h) Lentiviral Particles: sc-96554-V and OAT3 shRNA (m) Lentiviral Particles: sc-150151-V.

Molecular Weight of OAT3: 62 kDa.

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



OAT3 (H-44): sc-98807. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic and membrane staining of purkinje cells and cytoplasmic staining of cells in molecular layer.

RESEARCH USE

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


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Try **OAT3 (3C11): sc-293264**, our highly recommended monoclonal alternative to OAT3 (H-44).