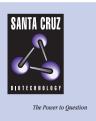
SANTA CRUZ BIOTECHNOLOGY, INC.

SLC22A9 (H-45): sc-98438



BACKGROUND

Solute carrier family 22 member 9 (SLC22A9), also known as organic anion transporter 4 (OAT4), is a 553 amino acid member of the organic cation transporter family of proteins. Members of the SLC22 family mediate anion transport primarily and are expressed primarily in liver and kidney. SLC22A9, a multi-pass membrane protein, is the only protein in the family that is expressed also in placenta. SLC22A9 has been shown to transport certain organic anions and other members of the SLC22 family, however, fewer numbers of substrates have been identified for SLC22A9, suggesting that it may have greater specificity than the other members of the family. Two isoforms of SLC22A9 exist as a result of alternative splicing events.

REFERENCES

- Cha, S.H., Sekine, T., Kusuhara, H., Yu, E., Kim, J.Y., Kim, D.K., Sugiyama, Y., Kanai, Y. and Endou, H. 2000. Molecular cloning and characterization of multispecific organic anion transporter 4 expressed in the placenta. J. Biol. Chem. 275: 4507-4512.
- 2. Sun, W., Wu, R.R., van Poelje, P.D. and Erion, M.D. 2001. Isolation of a family of organic anion transporters from human liver and kidney. Biochem. Biophys. Res. Commun. 283: 417-422.
- Enomoto, A., Takeda, M., Taki, K., Takayama, F., Noshiro, R., Niwa, T. and Endou, H. 2003. Interactions of human organic anion as well as cation transporters with indoxyl sulfate. Eur. J. Pharmacol. 466: 13-20.
- Ekaratanawong, S., Anzai, N., Jutabha, P., Miyazaki, H., Noshiro, R., Takeda, M., Kanai, Y., Sophasan, S. and Endou, H. 2004. Human organic anion transporter 4 is a renal apical organic anion/dicarboxylate exchanger in the proximal tubules. J. Pharmacol. Sci. 94: 297-304.
- Yamashita, F., Ohtani, H., Koyabu, N., Ushigome, F., Satoh, H., Murakami, H., Uchiumi, T., Nakamura, T., Kuwano, M., Tsujimoto, M. and Sawada, Y. 2006. Inhibitory effects of angiotensin II receptor antagonists and leukotriene receptor antagonists on the transport of human organic anion transporter 4. J. Pharm. Pharmacol. 58: 1499-1505.
- 6. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 607579. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Yokoyama, H., Anzai, N., Ljubojevic, M., Ohtsu, N., Sakata, T., Miyazaki, H., Nonoguchi, H., Islam, R., Onozato, M., Tojo, A., Tomita, K., Kanai, Y., Igarashi, T., Sabolic, I. and Endou, H. 2008. Functional and immunochemical characterization of a novel organic anion transporter OAT8 (SLC22A9) in rat renal collecting duct. Cell. Physiol. Biochem. 21: 269-278.
- Ogasawara, K., Terada, T., Motohashi, H., Asaka, J., Aoki, M., Katsura, T., Kamba, T., Ogawa, O. and Inui, K. 2008. Analysis of regulatory polymorphisms in organic ion transporter genes (SLC22A) in the kidney. J. Hum. Genet. 53: 607-614.
- Ugele, B., Bahn, A. and Rex-Haffner, M. 2008. Functional differences in steroid sulfate uptake of organic anion transporter 4 (OAT4) and organic anion transporting polypeptide 2B1 (OATP2B1) in human placenta. J. Steroid Biochem. Mol. Biol. 111: 1-6.

CHROMOSOMAL LOCATION

Genetic locus: SLC22A9 (human) mapping to 11q12.3.

SOURCE

SLC22A9 (H-45) is a rabbit polyclonal antibody raised against amino acids 206-250 mapping within an internal region of SLC22A9 of human origin.

PRODUCT

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

APPLICATIONS

SLC22A9 (H-45) is recommended for detection of SLC22A9 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of SLC22A9: 75 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.

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.