SANTA CRUZ BIOTECHNOLOGY, INC.

SLC10A4 (D-12): sc-136872

BACKGROUND

The SLC10 family of sodium/bile salt cotransporters contains over 50 members in animal, plant and bacterial species. SLC10A4 (solute carrier family 10 (sodium/bile acid cotransporter family), member 4), also known as P4, is a 437 amino acid multi-pass membrane protein belonging to the sodium:bile acid symporter family. A few members of the sodium:bile acid symporter family, such as NTCP (also known as SLC10A1) and Asbt (also known as SLC10A2), are involved in maintaining enterohepatic circulation of bile acids by mediating the first step of active bile transport through membrane barriers of liver and intestine. Other family members, including SLC10A6, play an important role in the cellular delivery of specific prohormones in testis, placenta, adrenal gland and other peripheral tissues. Family members such as SLC10A4 are uncharacterized and their functions are unknown. SLC10A4 is encoded by a gene located on human chromosome 4p11.

REFERENCES

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3. Mita, S., et al. 2006. Inhibition of bile acid transport across Na^+/taurocholate cotransporting polypeptide (SLC10A1) and bile salt export pump (ABCB 11)-coexpressing LLC-PK1 cells by cholestasis-inducing drugs. Drug Metab. Dispos. 34: 1575-1581.
4. Geyer, J., et al. 2006. The solute carrier family SLC10: more than a family of bile acid transporters regarding function and phylogenetic relationships. Naunyn Schmiedebergs Arch. Pharmacol. 372: 413-431.
5. Fernandes, C.F., et al. 2007. The novel putative bile acid transporter SLC10A5 is highly expressed in liver and kidney. Biochem. Biophys. Res. Commun. 361: 26-32.
6. Godoy, J.R., et al. 2007. Molecular and phylogenetic characterization of a novel putative membrane transporter (SLC10A7), conserved in vertebrates and bacteria. Eur. J. Cell Biol. 86: 445-460.
7. Alrefai, W.A., et al. 2007. Bile acid transporters: structure, function, regulation and pathophysiological implications. Pharm. Res. 24: 1803-1823.
8. Geyer, J., et al. 2008. Cloning and molecular characterization of the orphan carrier protein Slc10a4: expression in cholinergic neurons of the rat central nervous system. Neuroscience 152: 990-1005.
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CHROMOSOMAL LOCATION

Genetic locus: SLC10A4 (human) mapping to 4p11; Slc10a4 (mouse) mapping to 5 C3.2.

RESEARCH USE

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

SOURCE

SLC10A4 (D-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of SLC10A4 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136872 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SLC10A4 (D-12) is recommended for detection of SLC10A4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other SLC10A family members .

SLC10A4 (D-12) is also recommended for detection of SLC10A4 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for SLC10A4 siRNA (h): sc-89223, SLC10A4 siRNA (m): sc-153485, SLC10A4 shRNA Plasmid (h): sc-89223-SH, SLC10A4 shRNA Plasmid (m): sc-153485-SH, SLC10A4 shRNA (h) Lentiviral Particles: sc-89223-V and SLC10A4 shRNA (m) Lentiviral Particles: sc-153485-V.

Molecular Weight of SLC10A4: 47 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.