NTCP (M-130): sc-98485



The Power to Question

BACKGROUND

NTCP (Na+/taurocholate transport protein), also known as SLC10A1 (solute carrier family 10 (sodium/bile acid cotransporter family), member 1), is a 349 amino acid multi-pass membrane protein that belongs to the sodium/bile acid symporter family of cotransporters. Localized to the basolateral membranes of hepatocytes, NTCP plays a role in the hepatic sodium/bile acid uptake system, which functions as a substrate-specific, sodium-dependent transporter of both bile and non-bile organic compounds. The gene encoding NTCP maps to human chromosome 14, which houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the Presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder $\alpha 1$ -antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

REFERENCES

- Hagenbuch, B., et al. 1994. Molecular cloning, chromosomal localization, and functional characterization of a human liver Na+/bile acid cotransporter.
 J. Clin. Invest. 93: 1326-1331.
- 2. Green, R.M., et al. 1998. Genetic mapping of the Na+-taurocholate cotransporting polypeptide to mouse chromosome 12. Mamm. Genome 9: 598.
- Shiao, T., et al. 2000. Structural and functional characterization of liver cell-specific activity of the human sodium/taurocholate cotransporter. Genomics 69: 203-213.
- 4. Hallén, S., et al. 2002. Organization of the membrane domain of the human liver sodium/bile acid cotransporter. Biochemistry 41: 7253-7266.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 182396. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 6. Trauner, M., et al. 2003. Bile salt transporters: molecular characterization, function, and regulation. Physiol. Rev. 83: 633-671.
- 7. Ho, R.H., et al. 2004. Ethnicity-dependent polymorphism in Na+-taurocholate cotransporting polypeptide (SLC10A1) reveals a domain critical for bile acid substrate recognition. J. Biol. Chem. 279: 7213-7222.
- 8. Eloranta, J.J., et al. 2006. The human Na⁺-taurocholate cotransporting polypeptide gene is activated by glucocorticoid receptor and peroxisome proliferator-activated receptor- γ coactivator- 1α , and suppressed by bile acids via a small heterodimer partner-dependent mechanism. Mol. Endocrinol. 20: 65-79.

CHROMOSOMAL LOCATION

Genetic locus: Slc10a1 (mouse) mapping to 12 D1.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE

NTCP (M-130) is a rabbit polyclonal antibody raised against amino acids 133-260 mapping within an internal region of NTCP of mouse origin.

PRODUCT

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

APPLICATIONS

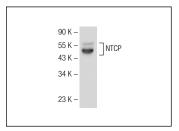
NTCP (M-130) is recommended for detection of NTCP of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 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 NTCP siRNA (h): sc-92260, NTCP siRNA (m): sc-150086, NTCP shRNA Plasmid (h): sc-92260-SH, NTCP shRNA Plasmid (m): sc-150086-SH, NTCP shRNA (h) Lentiviral Particles: sc-92260-V and NTCP shRNA (m) Lentiviral Particles: sc-150086-V.

Molecular Weight of NTCP: 38 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

DATA



NTCP (M-130): sc-98485. Western blot analysis of NTCP expression in Hep G2 whole cell lysate.

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.

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