

NTCP (M-12): sc-107029

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 Presenilin 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 α 1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

REFERENCES

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- 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.
- 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-1 α , and suppressed by bile acids via a small heterodimer partner-dependent mechanism. *Mol. Endocrinol.* 20: 65-79.

CHROMOSOMAL LOCATION

Genetic locus: SLC10A1 (human) mapping to 14q24.2; Slc10a1 (mouse) mapping to 12 D1.

SOURCE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-107029 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

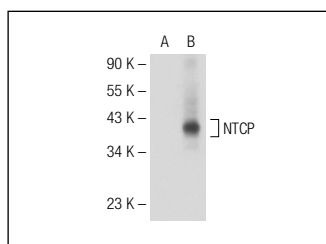
NTCP (M-12) is recommended for detection of NTCP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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: NTCP (m2): 293T Lysate: sc-122142 or Hep G2 cell lysate: sc-2227.

DATA



NTCP (M-12): sc-107029. Western blot analysis of NTCP expression in non-transfected: sc-117752 (A) and mouse NTCP transfected: sc-122142 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- González, R., et al. 2011. Nitric oxide mimics transcriptional and post-translational regulation during α -tocopherol cytoprotection against glycochenodeoxycholate-induced cell death in hepatocytes. *J. Hepatol.* 55: 133-144.

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.