

NTCP (Y-12): sc-107032

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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- Shiao, T., et al. 2000. Structural and functional characterization of liver cell-specific activity of the human sodium/taurocholate cotransporter. *Genomics* 69: 203-213.
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- Dias, V., et al. 2007. The expression of the solute carriers NTCP and Oct-1 is regulated by cholesterol in Hep G2 cells. *Fundam. Clin. Pharmacol.* 21: 445-450.

CHROMOSOMAL LOCATION

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

SOURCE

NTCP (Y-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NTCP of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-107032 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NTCP (Y-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 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).

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

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.

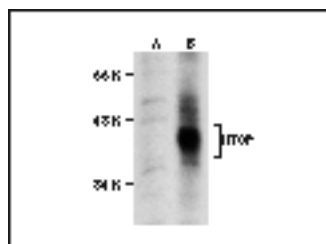
Molecular Weight of NTCP: 38 kDa.

Positive Controls: NTCP (m): 293T Lysate: sc-122142.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



NTCP (Y-12): sc-107032. Western blot analysis of NTCP expression in mouse embryonic kidney (MEK) cells transfected with NTCP siRNA (h): sc-92260 (A) and mouse NTCP shRNA (m): sc-150086 (B) 293T cells lysate.

RESEARCH USE

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