

NTCP (N-12): sc-107030

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.

CHROMOSOMAL LOCATION

Genetic locus: SLC10A1 (human) mapping to 14q24.2.

SOURCE

NTCP (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NTCP of human 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-107030 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

NTCP (N-12) is recommended for detection of NTCP of 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).

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

Suitable for use as control antibody for NTCP siRNA (h): sc-92260, NTCP shRNA Plasmid (h): sc-92260-SH and NTCP shRNA (h) Lentiviral Particles: sc-92260-V.

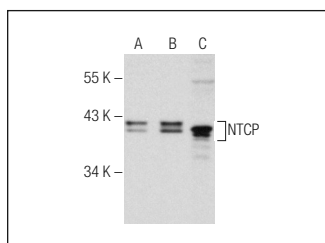
Molecular Weight of NTCP: 38 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, NTCP (h2): 293T Lysate: sc-373067 or HT-1080 whole cell lysate: sc-364183.

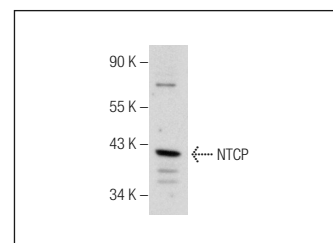
RECOMMENDED SECONDARY REAGENTS

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 (N-12): sc-107030. Western blot analysis of NTCP expression in non-transfected 293T: sc-117752 (A), human NTCP transfected 293T: sc-373067 (B) and HT-1080 (C) whole cell lysates.



NTCP (N-12): sc-107030. Western blot analysis of NTCP expression in Hep G2 whole cell lysate.

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.
- González, R., et al. 2011. Cytoprotective properties of rifampicin are related to the regulation of detoxification system and bile acid transporter expression during hepatocellular injury induced by hydrophobic bile acids. *J. Hepatobiliary Pancreat. Sci.* 18: 740-750.

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.