

# SLC10A7 (T-12): sc-160095

## BACKGROUND

The SLC10 family of sodium/bile salt cotransporters contains over 50 members in animal, plant and bacterial species. SLC10A7 (solute carrier family 10 (sodium/bile acid cotransporter family), member 7), also known as P7, is a 358 amino acid multi-pass membrane protein belonging to the sodium: bile acid symporter family. Existing as seven alternatively spliced isoforms, SLC10A7 is expressed at high levels in liver and lung, moderate levels in placenta, kidney, spleen, and thymus, and low levels in heart, prostate, and testis. 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 testes, placenta, adrenal gland and other peripheral tissues. Orphan carriers such as SLC10A7 are uncharacterized and their functions unknown.

## REFERENCES

1. Filippi, M., et al. 1990. Linkage and sequence conservation of the X-linked genes DXS253E (P3) and DXS254E (GdX) in mouse and man. *Genomics* 7: 453-457.
2. Hagenbuch, B. and Dawson, P. 2004. The sodium bile salt cotransport family SLC10. *Pflugers Arch.* 447: 566-570.
3. Mita, S., et al. 2006. Inhibition of bile acid transport across Na<sup>+</sup>/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. and Gill, R.K. 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.
9. Cheng, L., et al. 2010. Analysis of chemotherapy response programs in ovarian cancers by the next-generation sequencing technologies. *Gynecol. Oncol.* 117: 159-169.

## CHROMOSOMAL LOCATION

Genetic locus: SLC10A7 (human) mapping to 4q31.22; Slc10a7 (mouse) mapping to 8 C1.

## SOURCE

SLC10A7 (T-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SLC10A7 of human origin.

## 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-160095 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SLC10A7 (T-12) is recommended for detection of SLC10A7 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); non cross-reactive with other SLC10A family members.

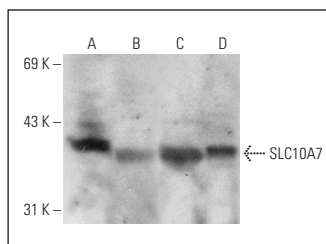
SLC10A7 (T-12) is also recommended for detection of SLC10A7 in additional species, including equine.

Suitable for use as control antibody for SLC10A7 siRNA (h): sc-89010, SLC10A7 siRNA (m): sc-153488, SLC10A7 shRNA Plasmid (h): sc-89010-SH, SLC10A7 shRNA Plasmid (m): sc-153488-SH, SLC10A7 shRNA (h) Lentiviral Particles: sc-89010-V and SLC10A7 shRNA (m) Lentiviral Particles: sc-153488-V.

Molecular Weight of SLC10A7: 36-39 kDa.

Positive Controls: PC-3 cell lysate: sc-2220, JAR cell lysate: sc-2276 or mouse liver extract: sc-2256.

## DATA



SLC10A7 (T-12): sc-160095. Western blot analysis of SLC10A7 expression in mouse pancreas (A) and mouse liver (B) tissue extracts and A549 (C) and JAR (D) whole cell lysates.

## 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.