ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

**Na+ –taurocholate co-transporting protein/SLC10A peptide control and Antibodies**

□ **Cat.** NTCP12-P Human NTCP (Na+ –taurocholate co-transporting protein/SLC10A) control peptide #2 **SIZE**:100ug

□ **Cat.** NTCP12-A Rabbit Anti-Human NTCP (Na+ –taurocholate co-transporting protein/SLC10A) peptide IgG aff pure **SIZE**:100ul

Hepatic uptake of bile salts is mediated by sodium-dependent and sodium-independent transporters. Sodium-independent uptake of, predominantly, unconjugated bile salts is accomplished by the activity of multiple organic anion transporting polypeptides (OATPs), including OATP1B1 and OATP1B3.2 The Na1-taurocholate cotransporting polypeptide SLC10A1 (NTCP) is the major transporter of conjugated bile salts from the plasma compartment into the hepatocyte.

NTCP is localized in the basolateral membrane and operates as a symporter, cotransporting two Na ions per bile salt molecule. Both NTCP and OATPs are important for maintaining the enterohepatic circulation of bile salts, a pathway in which bile salts cycle between liver and intestine multiple times a day. Bile salts are synthesized from cholesterol in hepatocytes, conjugated to glycine or taurine, and transported into the canalicular lumen by the bile salt export pump ABCB11/BSEP. In the intestine, bile salts aid in the solubilization and absorption of dietary fat and fat soluble vitamins.

## Source of Antigen and Antibodies

| | |
|---|---|
| **Antigen** | 25-aa peptide from **human NTCP**; **Designation (NTCP12-P, control/blocking peptide**) conjugated to KLH; **Epitope location**~ C-terminal, Cytoplasmic domain |
| **Ab Host/type** | Rabbit, Polyclonal IgG, purified over antigen-agarose (Cat # **NTCP12**-A) |
| **2-Ab** | Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available). |
| **-ve control IgG** | # 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control |

## Form & Storage of Antibodies/Peptide Control

**Affinity pure IgG**

□ 100 ug/100 ul □ solution □ lyophilized

Supplied in **Buffer**: PBS+0.1% BSA

**Reconstitute powder** in PBS at 1mg/ml

**Control/blocking peptide**

□ 100 ug/100 ul □ solution □ lyophilized

Supplied in Buffer: PBS pH 7.5

**Reconstitute powder in PBS at 1 mg/ml.**

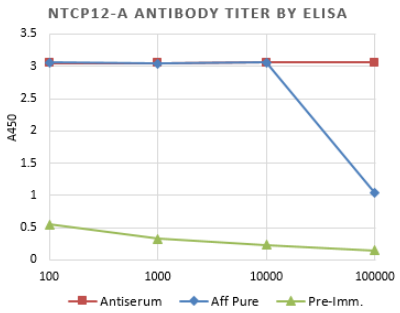
**Storage**

**Short-term**: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC.

**Long-term**: at –20oC or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability**: 6-12 months at –20oC or below.
**Shipping**: 4oC for solutions and room temp for powder

## Recommended Usage




**Western Blotting** 1-5ug/ml for affinity pure using Chemiluminescence technique.

**ELISA** (1:10K-1:100K; using 50-100ng of control peptide/well).

**Histochemistry** &

**Immunofluorescence:** Not tested. We recommend the use of affinity purified antibody at 5-10 ug/ml in paraformaldehyde fixed tissues.

## Specificity & Cross-reactivity

Human NTCP11-P sequence is 100% conserved in human, 88% in horse, cat, 79% in rat. No significant sequence homology exists with NTCP11 or NTCP12. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol see detailed protocol at the web site).

**General References**: Watashi K (2014). International Journal of Molecular Sciences. 15 (2): 2892–905; Yan H (2012). eLife. 1: e00049; Hagenbuch B (1994). The Journal of Clinical Investigation. 93 (3): 1326–31.

**This product is for in vitro research use only.*

**Related material available from ADI**

Catalog# Description

NTCP11-A Rabbit Anti-Human NTCP (Na+ –taurocholate co-transporting protein/SLC10A) peptide IgG #1, aff pure

NTCP11-P Human NTCP (Na+ –taurocholate co-transporting protein/SLC10A) control peptide #1

NTCP12-A-P 170302SV

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