

Anti-SLC10A1/NTCP1 Antibody Picoband®

Catalog Number: A06872-1

About Slc10a1

Sodium/bile acid cotransporter also known as the Na⁺-taurocholate cotransporting polypeptide (NTCP) or liver bile acid transporter (LBAT) is a protein that in humans is encoded by the SLC10A1 (solute carrier family 10 member 1) gene. It is mapped to 12 C3-D1; 12 37.21 cM. The protein encoded by this gene belongs to the sodium/bile acid cotransporter family, which are integral membrane glycoproteins that participate in the enterohepatic circulation of bile acids. Two homologous transporters are involved in the reabsorption of bile acids; the ileal sodium/bile acid cotransporter with an apical cell localization that absorbs bile acids from the intestinal lumen, bile duct and kidney, and the liver-specific sodium/bile acid cotransporter, represented by this protein, that is found in the basolateral membranes of hepatocytes. Bile acids are the catabolic product of cholesterol metabolism, hence this protein is important for cholesterol homeostasis.

Overview

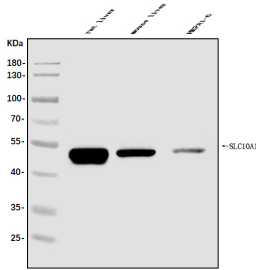
Product Name	Anti-SLC10A1/NTCP1 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-SLC10A1/NTCP1 Antibody Picoband® catalog # A06872-1. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	O08705

Technical Details

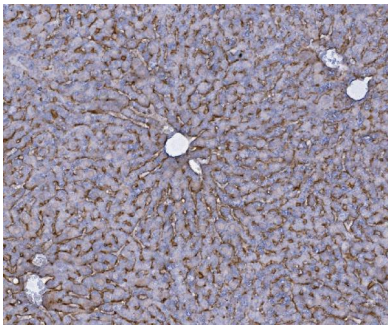
Immunogen	E.coli-derived mouse SLC10A1/NTCP1 recombinant protein (Position: F300-N342).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.25ug/ml, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5ug/ml, Mouse Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Mouse ELISA, 0.1-0.5ug/ml, -

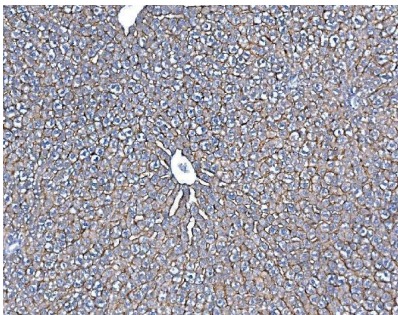
Anti-SLC10A1/NTCP1 Antibody Picoband® (A06872-1) Images



Western blot analysis of SLC10A1/NTCP1 using anti-SLC10A1/NTCP1 antibody (A06872-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions. Lane 1: rat liver tissue lysates, Lane 2: mouse liver tissue lysates, Lane 3: mouse HEP1A-6 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SLC10A1/NTCP1 antigen affinity purified polyclonal antibody (Catalog # A06872-1) at 0.25 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for SLC10A1/NTCP1 at approximately 50KD. The expected band size for SLC10A1/NTCP1 is at 50KD.

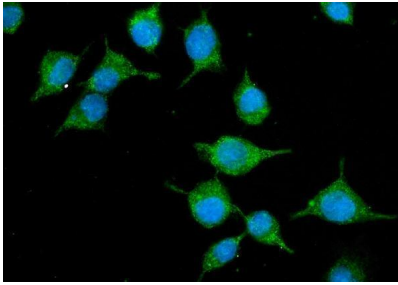


IHC analysis of SLC10A1/NTCP1 using anti-SLC10A1/NTCP1 antibody (A06872-1). SLC10A1/NTCP1 was detected in paraffin-embedded section of mouse liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-SLC10A1/NTCP1 Antibody (A06872-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

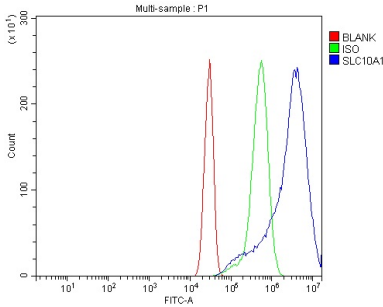


IHC analysis of SLC10A1/NTCP1 using anti-SLC10A1/NTCP1 antibody (A06872-1). SLC10A1/NTCP1 was detected in paraffin-embedded section of rat liver tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-SLC10A1/NTCP1 Antibody (A06872-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

IF analysis of SLC10A1/NTCP1 using anti-SLC10A1/NTCP1 antibody (A06872-1). SLC10A1/NTCP1 was detected in immunocytochemical section of HEP1A-6 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen



retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-SLC10A1/NTCP1 Antibody (A06872-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of HEPA1-6 cells using anti-SLC10A1/NTCP1 antibody (A06872-1). Overlay histogram showing HEPA1-6 cells stained with A06872-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-SLC10A1/NTCP1 Antibody (A06872-1, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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Anti-SLC10A1/NTCP1 Antibody

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