

### ABCB11 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP6110A

### Specification

# ABCB11 Antibody (C-term) - Product Information

Application Primary Accession Reactivity Host Clonality Isotype Antigen Region WB, IHC-P,E <u>095342</u> Human, Mouse Rabbit Polyclonal Rabbit IgG 1038-1067

### ABCB11 Antibody (C-term) - Additional Information

Gene ID 8647

**Other Names** Bile salt export pump, ATP-binding cassette sub-family B member 11, ABCB11, BSEP

Target/Specificity

This ABCB11 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1038-1067 amino acids from the C-terminal region of human ABCB11.

**Dilution** WB~~1:1000 IHC-P~~1:50~100

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

ABCB11 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## ABCB11 Antibody (C-term) - Protein Information

Name ABCB11 (<u>HGNC:42</u>)

Synonyms BSEP {ECO:0000303|Ref.2}

**Function** Catalyzes the transport of the major hydrophobic bile salts, such as taurine and



glycine-conjugated cholic acid across the canalicular membrane of hepatocytes in an ATP-dependent manner, therefore participates in hepatic bile acid homeostasis and consequently to lipid homeostasis through regulation of biliary lipid secretion in a bile salts dependent manner (PubMed:<u>15791618</u>, PubMed:<u>16332456</u>, PubMed:<u>18985798</u>, PubMed:<u>19228692</u>, PubMed:<u>20010382</u>, PubMed:<u>20398791</u>, PubMed:<u>22262466</u>, PubMed:<u>24711118</u>, PubMed:<u>29507376</u>, PubMed:<u>32203132</u>). Transports taurine-conjugated bile salts more rapidly than glycine-conjugated bile salts (PubMed:<u>16332456</u>). Also transports non-bile acid compounds, such as pravastatin and fexofenadine in an ATP-dependent manner and may be involved in their biliary excretion (PubMed:<u>15901796</u>, PubMed:<u>18245269</u>).

### **Cellular Location**

Apical cell membrane; Multi-pass membrane protein. Recycling endosome membrane {ECO:0000250|UniProtKB:070127}; Multi-pass membrane protein

{ECO:0000250|UniProtKB:O70127}. Endosome {ECO:0000250|UniProtKB:O70127}. Cell membrane; Multi-pass membrane protein. Note=Internalized at the canalicular membrane through interaction with the adapter protein complex 2 (AP-2) (PubMed:22262466). At steady state, localizes in the canalicular membrane but is also present in recycling endosomes. ABCB11 constantly and rapidly exchanges between the two sites through tubulo-vesicles carriers that move along microtubules. Microtubule-dependent trafficking of ABCB11 is enhanced by taurocholate and cAMP and regulated by STK11 through a PKA-mediated pathway. Trafficking of newly synthesized ABCB11 through endosomal compartment to the bile canalicular membrane is accelerated by cAMP but not by taurocholate (By similarity). Cell membrane expression is up-regulated by short- and medium-chain fatty acids (PubMed:20398791) {ECO:0000250|UniProtKB:O70127, ECO:0000269|PubMed:20398791, ECO:0000269|PubMed:22262466}

#### **Tissue Location**

Expressed predominantly, if not exclusively in the liver, where it was further localized to the canalicular microvilli and to subcanalicular vesicles of the hepatocytes by in situ

## ABCB11 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

ABCB11 Antibody (C-term) - Images





The anti-ABCB11 C-term Pab (Cat. #AP6110a) is used in Western blot to detect ABCB11 in mouse liver tissue lysate.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

## ABCB11 Antibody (C-term) - Background

ABCB11 is involved in the ATP-dependent secretion of bile salts into the canaliculus of hepatocytes. It is expressed predominatly, if not exclusively, in the liver, where it is further localized to the canilicular microvilli and to subcanilicular vesicles fo the hepatocytes. Structurally, ABCB11 is a multifunctional polypeptide with two homologus halves, each containing a hydrophobic membrane-anchoring domain and an ATP binding cassette (ABC) domain. Defects in ABCB11 are the cause of progressive familial intrahepatic cholestasis 2 (PFIC2). PFIC2 is an inherited liver disease of childhood which is characterized by cholestasis and normal serum gamma-glutamyltransferase activity. Defects in ABCB11 are also found in cases of chronic intrahepatic cholestasis without obvious familial history of chronic liver disease.

## ABCB11 Antibody (C-term) - References

Chen, H.L., et al., J. Pediatr. 140(1):119-124 (2002). Saito, S., et al., J. Hum. Genet. 47(1):38-50 (2002). Strautnieks, S.S., et al., Nat. Genet. 20(3):233-238 (1998). **ABCB11 Antibody (C-term) - Citations** 

• Hepatocyte-specific ablation of Foxa2 alters bile acid homeostasis and results in



endoplasmic reticulum stress.
"Do-not-resuscitate" orders during anesthesia and surgery.