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ABCB11 Blocking Peptide (C-term)

Synthetic peptide
Catalog # BP21646b

Specification

ABCB11 Blocking Peptide (C-term) - Product Information

Primary Accession O95342

ABCB11 Blocking Peptide (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
The synthetic peptide sequence is selected from aa 1083-1097 of HUMAN ABCB11

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ABCB11 Blocking Peptide (C-term) - Protein Information

Name ABCB11 (HGNC:42)

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

ABCB11 Blocking Peptide (C-term) - Background

Involved in the ATP-dependent secretion of bile salts into the canaliculus of hepatocytes.

ABCB11 Blocking Peptide (C-term) - References

Strautnieks S.S.,et al.Nat. Genet. 20:233-238(1998).
Mol O.,et al.Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
Hillier L.W.,et al.Nature 434:724-731(2005).
Mochizuki K.,et al.Am. J. Physiol. 292:G818-G828(2007).
Jansen P.L.M.,et al.Gastroenterology 117:1370-1379(1999).

ATP-dependent manner, therefore participates to hepatic bile acids homeostasis and consequently to lipid homeostasis through regulation of biliary lipid secretion in a bile salts dependent manner (PubMed:16332456, PubMed:22262466, PubMed:15791618, PubMed:18985798, PubMed:19228692, PubMed:20398791, PubMed:24711118, PubMed:29507376, PubMed:20010382, PubMed:32203132). Transports taurine-conjugated bile salts more rapidly than glycine-conjugated bile salts (PubMed:16332456). 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:15901796, PubMed:18245269).

Cellular Location
Apical cell membrane; Multi-pass membrane protein. Recycling endosome membrane {ECO:0000250|UniProtKB:O70127}; 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 Blocking Peptide (C-term) - Protocols

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

- Blocking Peptides