abcam

ab256536

Anti-ABCB11/BSEP antibody [EPR22670-64] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR22670-64
Purification technique	Affinity purification Protein A
Concentration	0.958 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Mouse, Human
Dilution info	-

Notes	-

WB

Not recommended

Species	Human, Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information ABCB11

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:15791618, PubMed:16332456, PubMed:18985798, PubMed:19228692, PubMed:20010382, PubMed:20398791, PubMed:22262466, PubMed:24711118, PubMed:29507376, 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).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab256536 is the carrier-free version of ab255605.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	ABCB11 also known as BSEP (bile salt export pump) is a protein that functions as an ATP-binding cassette transporter. It is encoded by the ABCB11 gene and has an approximate molecular mass of 160 kDa. BSEP is mainly expressed in the liver specifically on the canalicular membrane of hepatocytes. It facilitates the flow of bile acids from liver cells into the bile canaliculi playing an important role in bile acid homeostasis and detoxification processes within the liver.
Biological function summary	BSEP is essential for the transport of bile acids which are important components of bile necessary for the digestion and absorption of lipids and fat-soluble vitamins in the small intestine. BSEP functions as a homodimer and operates by using energy derived from ATP hydrolysis to export bile acids into bile. Malfunction of BSEP can impact bile flow and lead to severe liver conditions as it is the primary bile acid transporter at the canalicular membrane.
Pathways	BSEP's activity is integral to the enterohepatic circulation of bile acids. It works in conjunction with other transporters such as NTCP (sodium-taurocholate co-transporting polypeptide) and OSTα/β (organic solute transporter alpha-beta). These transporters play roles in the bile acid enterohepatic system contributing to

	liver-bile-gut circulation. Disruption in BSEP function can alter the FXR (farnesoid X receptor) signaling pathway critical in maintaining the balance of bile acid synthesis and metabolism.
Associated diseases and disorders	Mutations or functional deficiencies in BSEP are linked to progressive familial intrahepatic cholestasis type 2 (PFIC2) and intrahepatic cholestasis of pregnancy (ICP). These disorders are characterized by impaired bile flow and accumulation of bile acids in the liver. BSEP dysfunction may also interact with other proteins such as MDR3 (multidrug resistance protein 3) which is involved in phospholipid transport and bile formation contributing further to liver pathology.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

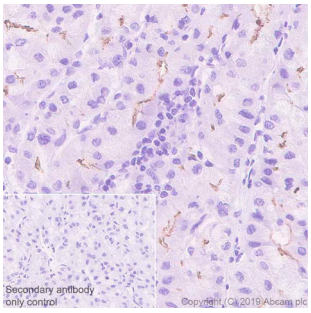
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

5 product images



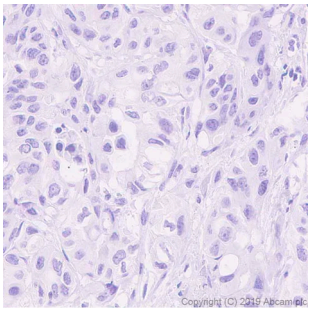
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABCB11/BSEP antibody [EPR22670-64] - BSA and Azide free (ab256536)

ABCB11/BSEP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ABCB11/BSEP antibody

Immunohistochemical analysis of paraffin-embedded human hepatocellular carcinoma tissue labeling BSEP with ab255605 at 1/ 500 dilution (1.288µg/ml) followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining in canaliculi of human hepatocellular carcinoma (PMID: 26735860) is observed.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab255605).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

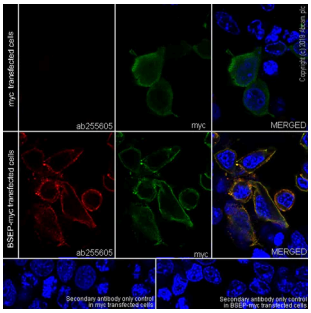


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABCB11/BSEP antibody [EPR22670-64] - BSA and Azide free (ab256536)

ABCB11/BSEP Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ABCB11/BSEP antibody

Immunohistochemical analysis of paraffin-embedded human cholangiocarcinomas tissue labeling BSEP with ab255605 at 1/500 dilution (1.288µg/ml) followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). **Negative staining** in human cholangiocarcinomas (PMID: 26735860) is observed. Counterstained with hematoxylin. Heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab255605).



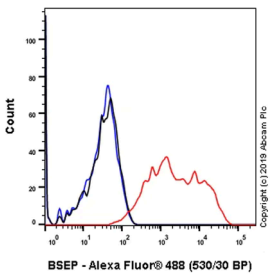
Immunocytochemistry/ Immunofluorescence - Anti-ABCB11/BSEP antibody [EPR22670-64] - BSA and Azide free (ab256536)

ABCB11/BSEP Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-ABCB11/BSEP antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HEK-293T (human embryonic kidney epithelial cell) cells labeling BSEP with ab255605 at 1/100, (6.4µg/ml) dilution, followed by ab150077 AlexaFluor® 488 Goat anti-Rabbit secondary antibody at 1/1000, (2µg/ml) dilution (Green). Confocal image showing membranous and cytoplasmic staining in 293T cells transfected with myc-tagged BSEP expression vector. ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).
Negative control: myc-transfected cells.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab150077 AlexaFluor® 488 Goat anti-Rabbit secondary at 1/1000, 2µg/ml dilution.

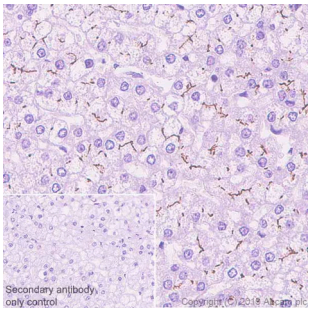
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab255605).



Flow Cytometry (Intracellular) - Anti-ABCB11/BSEP antibody [EPR22670-64] - BSA and Azide free (ab256536)

ABCB11/BSEP Flow Cytometry (Intracellular) staining using rabbit Anti-ABCB11/BSEP antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized HEK-293T (human embryonic kidney epithelial cell) transfected with myc-tagged BSEP expression vector cells labeling BSEP with ab255605 at 1/600 dilution (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody. Gated on myc (+) population.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab255605).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ABCB11/BSEP antibody [EPR22670-64] - BSA and Azide free (ab256536)

Immunohistochemical analysis of paraffin-embedded human liver tissue labeling BSEP with ab255605 at 1/500 dilution (1.288µg/ml) followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining in canaliculi of human liver (PMID: 26182153) is observed. Counterstained with hematoxylin. Heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0). Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab255605).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.