

# BSEP (human) monoclonal antibody (USal-hBSEP-McAb-1)

## Bile Salts

Bile salts are important physiological agents that serve a number of functions, including absorption, solubilization, transport and secretion of lipids. In the liver, they participate in the generation of bile flow and the secretion of cholesterol and phospholipids, such as phosphatidylcholine. When released into the intestine, they facilitate the uptake of cholesterol, fat-soluble vitamins and other lipids. Moreover, the biosynthesis of bile acids from cholesterol is the most significant pathway for the elimination of cholesterol from the body. However, because of their detergent properties, bile acids are inherently cytotoxic and disruptions in their normal transport or secretion can result in a variety of pathophysiological conditions.

## BSEP

Bile formation is an important function of the liver. It is mediated by hepatocytes which generate bile flow within the bile canaliculi by continuous vectorial secretion of bile salts and other solutes across their canalicular (apical) membrane. Bile secretion is mediated by several ATP-binding cassette (ABC) transporters located in the canalicular membrane of hepatocytes. Among these ABC transporters, the bile salt export pump (BSEP or ABCB11) represents the primary, if not sole transport system for the canalicular excretion of bile salts. Bile secretory failure results in cholestasis and progressive familial intrahepatic cholestasis (PFIC) in infancy represents a group of inherited cholestatic diseases that are classified into three subtypes. One of these subtypes, PFIC II, is associated with mutations in the BSEP gene. PFIC patients with mutations in the BSEP gene have normal  $\gamma$ -glutamyltransferase activity, low concentrations of bile salts in bile, and an absence of bile duct proliferation.

Additionally, human obesity is associated with altered cholesterol homeostasis including increased production and turnover, as well as secretion of excess cholesterol from the liver into bile.

BSEP is a multifunctional polypeptide with two homologous halves, each containing a hydrophobic membrane-anchoring domain and an ATP-binding cassette (ABC) domain. The membrane-anchoring domain is composed of six helices buried in the lipid bilayer of the plasma membrane and the ATP binding ABCs are exposed to the cytosol. The membrane-anchoring domain helices are thought to form channels spanning the plasma

membrane.

This antibody is covered by our [Worry-Free Guarantee](#).

Citations: 1 [View Online »](#)

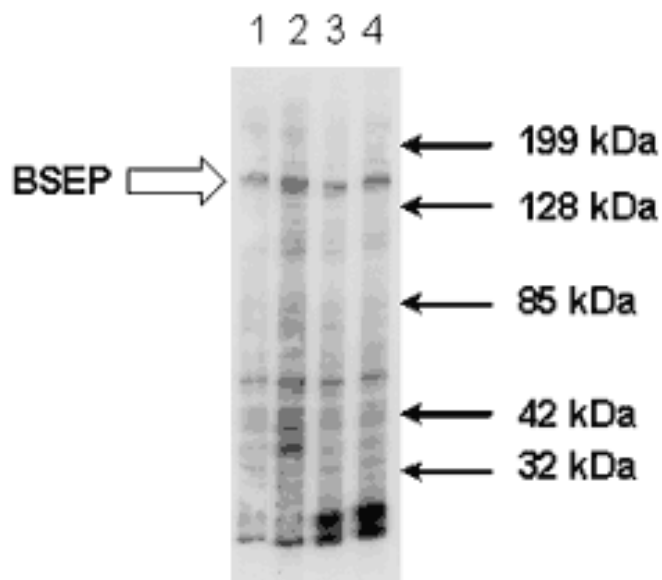
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ALX-801-035-C100	100µg
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Manuals, SDS & CofA [View Online »](#)







**Figure:** Western blot analysis using MAb to BSEP (human) (USal-hBSEP-McAb-1) (Prod. No. [ALX-801-035](#)) (Lot L17660). **Method:** Conditions of the assay carried out using crude plasma membranes purified from human liver tissue samples collected by fine needle biopsy; Amount of proteins loaded: 40µg; Dilutions: lane 1: 1/200; lane 2: 1/150; lane 3: 1/100; lane 4: 1/50. **Western blot, BSEP (human) monoclonal antibody (USal-hBSEP-McAb-1) Western blot, yes**

ALX-801-058A, ALX-801-

058A\_IHC.gif, [http://static.enzolifesciences.com/fileadmin/files/image/ALX-](http://static.enzolifesciences.com/fileadmin/files/image/ALX-801-058A_IHC.gif)

801-058A\_IHC.gif, IHC staining of anti-CD99 antibody (clone O13) on formalin-fixed paraffin embedded human Ewing sarcoma tissue. Ewing's sarcoma (human) monoclonal antibody (O13) IHC, Ewing's sarcoma (human) monoclonal antibody (O13)

Immunohistochemistry, yes

ALX-801-089, ALX-801-089\_IHC-

2.gif, [http://static.enzolifesciences.com/fileadmin/files/image/ALX-](http://static.enzolifesciences.com/fileadmin/files/image/ALX-801-089_IHC-2.gif)

801-089\_IHC-2.gif, Cervical tissue assayed with CD44std (human) monoclonal antibody (SFF-304) (ALX-801-089). Developed with POLYVIEW® PLUS HRP (anti-mouse) reagent (ENZ-ACC104) and HIGHDEF® DAB Chromogen/Substrate Set (ENZ-ACC105). CD44std (human) monoclonal antibody (SFF-304) Immunohistochemistry, CD44std (human) monoclonal antibody (SFF-304)

Immunohistochemistry, yes

ALX-801-089, ALX-801-089\_IHC-

1.gif, [http://static.enzolifesciences.com/fileadmin/files/image/ALX-](http://static.enzolifesciences.com/fileadmin/files/image/ALX-801-089_IHC-1.gif)

801-089\_IHC-1.gif, Cervical tissue assayed with CD44std (human) monoclonal antibody (SFF-304) (ALX-801-089). Developed with POLYVIEW® PLUS HRP (anti-mouse) reagent (ENZ-ACC104) and



## Handling & Storage

Handling	Avoid freeze/thaw cycles. After opening, prepare aliquots and store at -20°C.
Short Term Storage	+4°C
Long Term Storage	-20°C
Shipping	Blue Ice

## Regulatory Status

RUO - Research Use Only

## Product Details

Alternative Name	Bile salt export pump, SPGP, Sister of P-glycoprotein, ABCB11
Application	ICC, WB
Application Notes	Immunocytochemistry: cytospin preparations Not suitable for IHC.
Clone	USal-hBSEP-McAb-1
Formulation	Liquid. Contains 100nM sodium azide and 0.7% BSA.
Host	Mouse
Immunogen	Synthetic peptide corresponding to aa 705-718 (Y705LVHEPPLAVVDHK718) of human BSEP (bile salt export pump).
Isotype	IgG1
Purity Detail	Protein G-affinity purified.
Recommendation Dilutions/Conditions	Western Blot (1:50-1:200)Suggested dilutions/conditions may not be available for all applications.Optimal conditions must be determined individually for each application.
Species Reactivity	Human
UniProt ID	O95342

Worry-free Guarantee

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ENZO LIFE SCIENCES,  
INC.  
Phone: 800.942.0430  
[info-  
usa@enzolifesciences.com](mailto:info-usa@enzolifesciences.com)

European Sales Office  
ENZO LIFE SCIENCES  
(ELS) AG  
Phone: +41 61 926 8989  
[info-  
eu@enzolifesciences.com](mailto:info-eu@enzolifesciences.com)

Belgium, The Netherlands  
& Luxembourg  
Phone: +32 3 466 0420  
[info-  
be@enzolifesciences.com](mailto:info-be@enzolifesciences.com)

France  
Phone: +33 472 440 655  
[info-  
fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

Germany  
Phone: +49 7621 5500 526  
[info-  
de@enzolifesciences.com](mailto:info-de@enzolifesciences.com)

UK & Ireland  
Phone (UK customers):  
0845 601 1488  
Phone: +44 1392 825900  
[info-  
uk@enzolifesciences.com](mailto:info-uk@enzolifesciences.com)