

BSEP (F-6): sc-74500

BACKGROUND

ATP-binding cassette (ABC) transporters are an evolutionarily conserved family of proteins that catalyze the transport of molecules across extra- and intra-cellular membranes through the energy of ATP hydrolysis. ABC genes comprise seven subfamilies, designated ABC1, Mdr/TAP, MRP, ALD, OABP, GCN20 and White. The secretion of bile salt molecules from blood into bile is a major driving force for bile formation. Bile salt export pump (BSEP) is a member of the Mdr/TAP subfamily of ABC transporters that mediates the transport of bile acids across the hepatocyte canalicular membrane and regulates bile acid-dependent bile secretion. BSEP contains putative phosphorylation sites for protein kinase A, protein kinase C (PKC) and Ca^{2+} -calmodulin dependent kinase II, whose regulation may be dependent on bile salt concentration.

CHROMOSOMAL LOCATION

Genetic locus: ABCB11 (human) mapping to 2q31.1; Abcb11 (mouse) mapping to 2 C2.

SOURCE

BSEP (F-6) is a mouse monoclonal antibody raised against amino acids 1-180 of BSEP of human origin.

PRODUCT

Each vial contains 200 μg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BSEP (F-6) is available conjugated to agarose (sc-74500 AC), 500 μg /0.25 ml agarose in 1 ml, for IP; to HRP (sc-74500 HRP), 200 μg /ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74500 PE), fluorescein (sc-74500 FITC), Alexa Fluor® 488 (sc-74500 AF488), Alexa Fluor® 546 (sc-74500 AF546), Alexa Fluor® 594 (sc-74500 AF594) or Alexa Fluor® 647 (sc-74500 AF647), 200 μg /ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-74500 AF680) or Alexa Fluor® 790 (sc-74500 AF790), 200 μg /ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

BSEP (F-6) is recommended for detection of BSEP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for BSEP siRNA (h): sc-41157, BSEP siRNA (m): sc-41158, BSEP shRNA Plasmid (h): sc-41157-SH, BSEP shRNA Plasmid (m): sc-41158-SH, BSEP shRNA (h) Lentiviral Particles: sc-41157-V and BSEP shRNA (m) Lentiviral Particles: sc-41158-V.

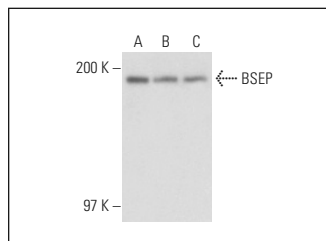
Molecular Weight of BSEP: 160-190 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, C3H/10T1/2 cell lysate: sc-3801 or KNRK whole cell lysate: sc-2214.

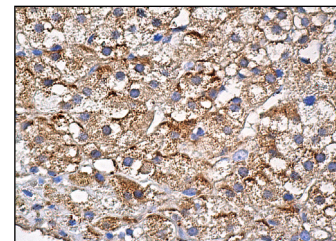
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



BSEP (F-6): sc-74500. Western blot analysis of BSEP expression in C3H/10T1/2 (A), c4 (B) and KNRK (C) whole cell lysates.



BSEP (F-6): sc-74500. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic and membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

- Chen, B.C., et al. 2009. Retinoid X receptor α participation in dexamethasone-induced rat bile acid coenzyme A-amino acid N-acyltransferase expression in septic liver. *Shock* 32: 164-171.
- Chen, F., et al. 2010. ATPase class I type 8B member 1 and protein kinase C ζ induce the expression of the canalicular bile salt export pump in human hepatocytes. *Pediatr. Res.* 67: 183-187.
- Van Rooyen, D.M., et al. 2011. Hepatic free cholesterol accumulates in obese, diabetic mice and causes nonalcoholic steatohepatitis. *Gastroenterology* 141: 1393-1403.e5.
- Ellinger, P., et al. 2013. Detergent screening and purification of the human liver ABC transporters BSEP (ABCB11) and MDR3 (ABCB4) expressed in the yeast *Pichia pastoris*. *PLoS ONE* 8: e60620.
- Ozeki, M., et al. 2015. Abnormal localization of STK17A in bile canaliculi in liver allografts: an early sign of chronic rejection. *PLoS ONE* 10: e0136381.
- Okushin, K., et al. 2016. The intrahepatic expression levels of bile acid transporters are inversely correlated with the histological progression of nonalcoholic fatty liver disease. *J. Gastroenterol.* 51: 808-818.
- Stindt, J., et al. 2016. Bile salt export pump-reactive antibodies form a polyclonal, multi-inhibitory response in antibody-induced bile salt export pump deficiency. *Hepatology* 63: 524-537.
- Xu, W., et al. 2016. Dihydroartemisinin protects against alcoholic liver injury through alleviating hepatocyte steatosis in a farnesoid X receptor-dependent manner. *Toxicol. Appl. Pharmacol.* 315: 23-34.
- Hirata, H., et al. 2017. Xanthohumol, a hop-derived prenylated flavonoid, promotes macrophage reverse cholesterol transport. *J. Nutr. Biochem.* 47: 29-34.

RESEARCH USE

For research use only, not for use in diagnostic procedures.