SANTA CRUZ BIOTECHNOLOGY, INC.

# BSEP (N-16): sc-17292

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

## BACKGROUND

ATP-binding cassette (ABC) transporters are an evolutionarily conserved family of proteins that catalyze the transport of molecules across extra- and intracellular 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.

## REFERENCES


1. Kullak-Ublick, G.A., et al. 2000. Hepatic transport of bile salts. Semin. Liver Dis. 20: 273-292.
2. Akita, H., et al. 2001. Characterization of bile acid transport mediated by multidrug resistance associated protein 2 and bile salt export pump. Biochim. Biophys. Acta 1511: 7-16.


## CHROMOSOMAL LOCATION

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

## SOURCE

BSEP (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BSEP of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17292 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

BSEP (N-16) is recommended for detection of BSEP of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BSEP (N-16) is also recommended for detection of BSEP in additional species, including equine, canine, bovine and porcine.

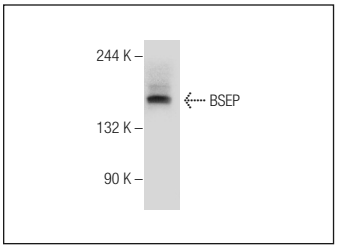
Suitable for use as control antibody for BSEP siRNA (h): sc-41157, BSEP siRNA (m): sc-41158, BSEP shRNA Plasmid (h): sc-41157-SH, BSEP shRNA Plasmid (m): sc-41158-SH, BSEP shRNA (h) Lentiviral Particles: sc-41157-V and BSEP shRNA (m) Lentiviral Particles: sc-41158-V.

Molecular Weight of BSEP: 160-190 kDa.

## STORAGE

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

## DATA




BSEP (N-16): sc-17292. Western blot analysis of BSEP expression in NIH/3T3 whole cell lysate.

## SELECT PRODUCT CITATIONS


1. Alvarez, L., et al. 2004. Reduced hepatic expression of farnesoid X receptor in hereditary cholestasis associated to mutation in ATP8B1. Hum. Mol. Genet. 13: 2451-2460.
2. Hayashi, H., et al. 2009. Short-chain ubiquitination is associated with the degradation rate of a cell-surface-resident bile salt export pump (BSEP/ABCB11). Mol. Pharmacol. 75: 143-150.
3. Jara, P., et al. 2009. Recurrence of bile salt export pump deficiency after liver transplantation. N. Engl. J. Med. 361: 1359-1367.
4. Kato, T., et al. 2010. Short- and medium-chain fatty acids enhance the cell surface expression and transport capacity of the bile salt export pump (BSEP/ABCB11). Biochim. Biophys. Acta 1801: 1005-1012.
5. González, R., et al. 2011. Nitric oxide mimics transcriptional and post-translational regulation during $\alpha$-tocopherol cytoprotection against glycochenodeoxycholate-induced cell death in hepatocytes. J. Hepatol. 55: 133-144.
6. González, R., et al. 2011. Cytoprotective properties of rifampicin are related to the regulation of detoxification system and bile acid transporter expression during hepatocellular injury induced by hydrophobic bile acids. J. Hepatobiliary Pancreat. Sci. 18: 740-750.


## RESEARCH USE

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