SANTA CRUZ BIOTECHNOLOGY, INC.

# ABCB8 (N-16): sc-68247

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*The Power to Question*

## BACKGROUND

ATP-binding cassette (ABC) transporters are an evolutionarily conserved family of proteins that catalyze the transport of molecules across extracellular and intracellular membranes by harnessing the energy of ATP hydrolysis. ABCB8 (ATP-binding cassette, sub-family B (MDR/TAP), member 8), also known as MABC1, is a 735 amino acid multi-pass membrane protein that localizes to mitochondria and belongs to the superfamily of ABC transporters. Expressed ubiquitously, ABCB8 contains one ABC transporter domain and one ABC transmembrane type-1 domain through which it plays a role in protein transport and, existing as a monomer, may also be involved in drug resistance and antigen presentation. Specifically, ABCB8 is thought to facilitate the compartmentalization and transport of peptides, as well as heme, from mitochondria to the cytosol. Two isoforms of ABCB8, designated short and long, exist due to alternative splicing events.

## REFERENCES


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2. Hogue, D.L., et al. 1999. Identification and characterization of a mammalian mitochondrial ATP-binding cassette membrane protein. J. Mol. Biol. 285: 379-389.
3. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 605464. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Saito, S., et al. 2002. Three hundred twenty-six genetic variations in genes encoding nine members of ATP-binding cassette, subfamily B (ABCB/MDR/TAP), in the Japanese population. J. Hum. Genet. 47: 38-50.
5. Yasui, K., et al. 2004. Alteration in copy numbers of genes as a mechanism for acquired drug resistance. Cancer Res. 64: 1403-1410.
6. Melaine, N., et al. 2006. Molecular cloning of several rat ABC transporters including a new ABC transporter, Abcb8, and their expression in rat testis. Int. J. Androl. 29: 392-399.
7. Tang, L., et al. 2009. Exclusion of ABCB8 and ABCB10 as cancer candidate genes in acute myeloid leukemia. Leukemia 23: 1000-1002.
8. Elliott, A.M., et al. 2009. ABCB8 mediates doxorubicin resistance in melanoma cells by protecting the mitochondrial genome. Mol. Cancer Res. 7: 79-87.


## CHROMOSOMAL LOCATION

Genetic locus: ABCB8 (human) mapping to 7q36.1; Abcb8 (mouse) mapping to 5 A3.

## SOURCE

ABCB8 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ABCB8 of human origin.

## RESEARCH USE

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

## 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-68247 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ABCB8 (N-16) is recommended for detection of ABCB8 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

ABCB8 (N-16) is also recommended for detection of ABCB8 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ABCB8 siRNA (h): sc-72414, ABCB8 siRNA (m): sc-72415, ABCB8 shRNA Plasmid (h): sc-72414-SH, ABCB8 shRNA Plasmid (m): sc-72415-SH, ABCB8 shRNA (h) Lentiviral Particles: sc-72414-V and ABCB8 shRNA (m) Lentiviral Particles: sc-72415-V.

Molecular Weight of ABCB8: 72 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

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

## PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.