## SANTA CRUZ BIOTECHNOLOGY, INC.

# ABCB6 (L-12): sc-107367



## BACKGROUND

The ATP-binding cassette (ABC) superfamily is comprised of transmembrane proteins involved in energy-dependent transport of a variety of substrates across membranes. ABCB6 is a 842 amino acid protein belonging to the heavy metal importer subfamily of the ABC transporter family. Upregulated at the protein level by cellular porphyrins, ABCB6 binds to heme and a porphyrin and assists in their ATP-dependent uptake into the mitochondria. ABCB6 also plays an important role in heme synthesis. ABCB6 contains one ABC transmembrane type-1 domain and one ABC transporter domain and forms a homodimer in the mitochondrion outer membbrane, plasma membrane and the Golgi apparatus. Widely expressed, ABCB6 has highest expression in skeletal muscle and heart. ABCB6 is present as two isoforms produced by alternative splicing events.

## REFERENCES

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- Mitsuhashi, N., et al. 2000. MTABC3, a novel mitochondrial ATP-binding cassette protein involved in iron homeostasis. J. Biol. Chem. 275: 17536-17540.
- 4. Emadi-Konjin, H.P., et al. 2002. Isolation of a genomic clone containing the promoter region of the human ATP binding cassette (ABC) transporter, ABCB6. Biochim. Biophys. Acta 1574: 117-130.
- Kurashima-Ito, K., et al. 2006. Heteronuclear multidimensional NMR and homology modelling studies of the C-terminal nucleotide-binding domain of the human mitochondrial ABC transporter ABCB6. J. Biomol. NMR 35: 53-71.
- 6. Krishnamurthy, P.C., et al. 2006. Identification of a mammalian mitochondrial porphyrin transporter. Nature 443: 586-589.
- 7. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 605452. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Paterson, J.K., et al. 2007. Human ABCB6 localizes to both the outer mitochondrial membrane and the plasma membrane. Biochemistry 46: 9443-9452.
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## CHROMOSOMAL LOCATION

Genetic locus: ABCB6 (human) mapping to 2q35; Abcb6 (mouse) mapping to 1 C3.

#### **RESEARCH USE**

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

## SOURCE

ABCB6 (L-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ABCB6 of human origin.

#### PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-107367 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

ABCB6 (L-12) is recommended for detection of ABCB6 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); non cross-reactive with ABCB6-3.

ABCB6 (L-12) is also recommended for detection of ABCB6 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for ABCB6 siRNA (h): sc-94721, ABCB6 siRNA (m): sc-140757, ABCB6 shRNA Plasmid (h): sc-94721-SH, ABCB6 shRNA Plasmid (m): sc-140757-SH, ABCB6 shRNA (h) Lentiviral Particles: sc-94721-V and ABCB6 shRNA (m) Lentiviral Particles: sc-140757-V.

Molecular Weight of ABCB6 isoforms: 104/79 kDa.

#### **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) Immunofluo-rescence: 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.

MONOS Satisfation Guaranteed

Try **ABCB6 (G-10):** sc-365930 or **ABCB6 (24.39):** sc-135727, our highly recommended monoclonal alternatives to ABCB6 (L-12).