

ABCB6 (G-10): sc-365930

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 membrane, 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.

CHROMOSOMAL LOCATION

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

SOURCE

ABCB6 (G-10) is a mouse monoclonal antibody raised against amino acids 551-630 mapping within an internal region of ABCB6 of human origin.

PRODUCT

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

ABCB6 (G-10) is available conjugated to agarose (sc-365930 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365930 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365930 PE), fluorescein (sc-365930 FITC), Alexa Fluor® 488 (sc-365930 AF488), Alexa Fluor® 546 (sc-365930 AF546), Alexa Fluor® 594 (sc-365930 AF594) or Alexa Fluor® 647 (sc-365930 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365930 AF680) or Alexa Fluor® 790 (sc-365930 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

ABCB6 (G-10) is recommended for detection of ABCB6 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

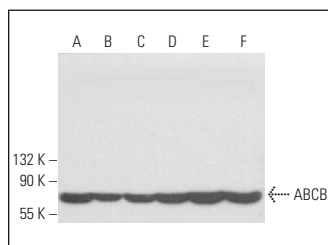
Molecular Weight of ABCB6 isoforms: 104/79 kDa.

Positive Controls: Neuro-2A whole cell lysate: sc-364185, NIH/3T3 whole cell lysate: sc-2210 or HeLa whole cell lysate: sc-2200.

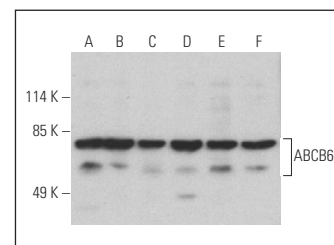
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ABCB6 (G-10): sc-365930. Western blot analysis of ABCB6 expression in PC-12 (A), EOC 20 (B), NIH/3T3 (C), HL-60 (D), F9 (E) and Y79 (F) whole cell lysates.



ABCB6 (G-10) HRP: sc-365930 HRP. Direct western blot analysis of ABCB6 expression in HeLa (A), Neuro-2A (B), C6 (C), PC-12 (D), NIH/3T3 (E) and F9 (F) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Campbell, M.R., et al. 2013. Novel hematopoietic target genes in the NRF2-mediated transcriptional pathway. *Oxid. Med. Cell. Longev.* 2013: 120305.
2. Yi, M., et al. 2022. CXCL8 facilitates the survival and paclitaxel-resistance of triple-negative breast cancers. *Clin. Breast Cancer* 22: e191-e198.
3. She, Q., et al. 2022. ABCB6 knockdown suppresses melanogenesis through the GSK3-β/β-catenin signaling axis in human melanoma and melanocyte cell lines. *J. Dermatol. Sci.* 106: 101-110.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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