SANTA CRUZ BIOTECHNOLOGY, INC.

ABCG2 (M-70): sc-25822

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 extracellular and intracellular membranes through the energy of ATP hydrolysis. The ABC half-transporter, ABCG2, is also known as placenta-specific ABC transporter and breast cancer resistance protein (BCRP1). ABCG2 confers resistance for a variety of chemotherapeutic agents, including anthracyclines, mitoxantrone, bisantrene and topotecan. Under normal conditions, ABCG2 may serve a protective function by removing toxins from the cell, and plays an important role in regulating stem cell differentiation. ABCG2 is responsible for the side population (SP) phenotype and is widely expressed in a large variety of stem cells, making it an important stem cell marker. ABCG2 may have N-linked glycosylation and may dimerize *in vivo*. ABCG2 is abundantly expressed in placenta, liver, intestine and stem cells.

CHROMOSOMAL LOCATION

Genetic locus: Abcg2 (mouse) mapping to 6 B3.

SOURCE

ABCG2 (M-70) is a rabbit polyclonal antibody raised against amino acids 301-370 mapping within an internal region of ABCG2 of mouse origin.

PRODUCT

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

APPLICATIONS

ABCG2 (M-70) is recommended for detection of ABCG2 of 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).

Suitable for use as control antibody for ABCG2 siRNA (m): sc-37054, ABCG2 shRNA Plasmid (m): sc-37054-SH and ABCG2 shRNA (m) Lentiviral Particles: sc-37054-V.

Molecular Weight of ABCG2: 72 kDa.

Positive Controls: mouse brain extract: sc-2253, mouse kidney extract: sc-2255 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.

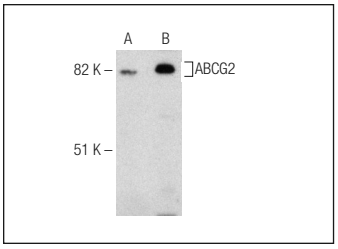
PROTOCOLS

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

RESEARCH USE

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

DATA



ABCG2 (M-70): sc-25822. Western blot analysis of ABCG2 expression in HT-2 (**A**) and KNRK (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Vander Borght, S., et al. 2006. Breast cancer resistance protein (BCRP/ABCG2) is expressed by progenitor cells/reactive ductules and hepatocytes and its expression pattern is influenced by disease etiology and species type: possible functional consequences. J. Histochem. Cytochem. 54: 1051-1059.
2. Staud, F., et al. 2006. Expression and transport activity of breast cancer resistance protein (Bcrp/Abcg2) in dually perfused rat placenta and HRP-1 cell line. J. Pharmacol. Exp. Ther. 319: 53-62.
3. Takiue, Y., et al. 2011. The effect of female hormones upon urate transport systems in the mouse kidney. Nucleosides Nucleotides Nucleic Acids 30: 113-119.
4. Doshi, M., et al. 2011. The increased protein level of URAT1 was observed in obesity/metabolic syndrome model mice. Nucleosides Nucleotides Nucleic Acids 30: 1290-1294.
5. Peroni, R.N., et al. 2011. Efavirenz is a substrate and in turn modulates the expression of the efflux transporter ABCG2/BCRP in the gastrointestinal tract of the rat. Biochem. Pharmacol. 82: 1227-1233.
6. Gugatschka, M., et al. 2011. Recruitment patterns of side population cells during wound healing in rat vocal folds. Laryngoscope 121: 1662-1667.
7. Yang, J., et al. 2012. Dopaminergic neuronal conversion from adult rat skeletal muscle-derived stem cells *in vitro*. Neurochem. Res. 37: 1982-1992.