**ABCG2 (B-1): sc-377176**

**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 (human) mapping to 4q22.1.

**SOURCE**

ABCG2 (B-1) is a mouse monoclonal antibody raised against amino acids 301-370 mapping within an internal region of ABCG2 of human origin.

**PRODUCT**

Each vial contains 200 μg IgGκ, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ABCG2 (B-1) is available conjugated to agarose (sc-377176 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377176 HRP), 200 μg/ml, for WB, (H/C/P) and ELISA; to either phycoerythrin (sc-377176 PE), fluorescein (sc-377176 FITC), Alexa Fluor® 488 (sc-377176 AF488), Alexa Fluor® 546 (sc-37716 AF546), Alexa Fluor® 594 (sc-37716 AF594) or Alexa Fluor® 647 (sc-37716 AF647), 200 μg/ml, for WB (RGB), IF, (H/C/P) and FCM; and to either Alexa Fluor® 680 (sc-37716 AF680) or Alexa Fluor® 790 (sc-37716 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

ABCG2 (B-1) is recommended for detection of ABCG2 of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:300).

Suitable for use as control antibody for ABCG2 siRNA (h): sc-41151, ABCG2 shRNA Plasmid (h): sc-41151-SH and ABCG2 shRNA (h) Lentiviral Particles: sc-41151-V.

Molecular Weight of ABCG2: 72 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, JAR cell lysate: sc-2276 or ABCG2 (h2): 293T Lysate: sc-172393.

**STORAGE**

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

**DATA**

![Western blot analysis of ABCG2 expression in non-transfected 293T, sc-177562 (A), human ABCG2 transfected 293T: sc-172393 (B) and HL-60/MX1 (C) whole cell lysates.](image1)

![Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing membrane and cytoplasmic staining of glandular cells.](image2)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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