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.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: ABCG2 (human) mapping to 4q22.1; Abcg2 (mouse) mapping to 6 B3.

SOURCE

ABCG2 (BXP-53) is a rat monoclonal antibody raised against amino acids 221-394 of ABCG2 of mouse origin.

PRODUCT

Each vial contains 100 µg IgG2a in 1.0 ml of PBS with <0.1% sodium azide and 0.1% stabilizer protein.

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.

APPLICATIONS

ABCG2 (BXP-53) is recommended for detection of ABCG2 of mouse, rat and human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:10-1:2000), immunoprecipitation [10-20 µl per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution to be determined by researcher, dilution range 1:10-1:200) and flow cytometry (10-20 µl per 1 x 10^6 cells).

Suitable for use as control antibody for ABCG2 siRNA (h): sc-41151, ABCG2 siRNA (m): sc-37054, ABCG2 shRNA Plasmid (h): sc-41151-SH, ABCG2 shRNA Plasmid (m): sc-37054-SH, ABCG2 shRNA (h) Lentiviral Particles: sc-41151-V and ABCG2 shRNA (m) Lentiviral Particles: sc-37054-V.

Molecular Weight of ABCG2: 72 kDa.

Positive Controls: ABCG2 (h3): 293T Lysate: sc-172804, JAR cell lysate: sc-2276 or MCF7 whole cell lysate: sc-2206.

DATA

SELECT PRODUCT CITATIONS


See ABCG2 (B-1): sc-377176 for ABCG2 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.