

Anti-BCRP/ABCG2 Antibody

Catalog Number: PA1869

About ABCG2

ABCG2 (Atp-binding cassette, subfamily g, member 2) also known as ABCP, BCRP or MRX, is a protein that in humans is encoded by the ABCG2 gene. The ABCG2 gene encodes a membrane transporter belonging to the ATP-binding cassette (ABC) superfamily of membrane transporters, which are involved in the trafficking of biologic molecules across cell membranes. The ABCG2 protein is also a high capacity transporter for uric acid excretion in the kidney, liver, and gut. The ABCG2 gene is mapped on 4q22.1. In vitro assays of isolated membrane preparations revealed a high-capacity, vanadate-sensitive ATPase activity associated with ABCG2 expression that was stimulated by compounds known to be transported by this protein. Ozvegy et al. (2001) concluded that ABCG2 is likely functioning as a homodimer or homooligomer in this expression system since it is unlikely that putative Sf9 transport partners would be overexpressed at similarly high levels. Abcg2 transports pheophorbide-a, which occurs in various plant-derived foods and food supplements and is highly efficient in limiting its uptake from ingested food. ABCG2 is a major factor in the concentrative transfer of drugs, carcinogens, and dietary toxins to the milk of mice, cows, and humans.

Overview

Product Name	Anti-BCRP/ABCG2 Antibody
Reactive Species	Human
Description	Boster Bio Anti-BCRP/ABCG2 Antibody catalog # PA1869. Tested in WB applications. This antibody reacts with Human.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q9UNQ0

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human BCRP/ABCG2.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human</p>

Anti-BCRP/ABCG2 Antibody (PA1869) Images

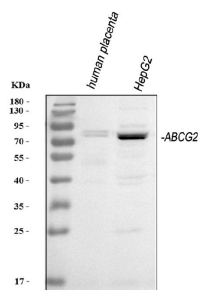


Figure 1. Western blot analysis of BCRP/ABCG2 using anti-BCRP/ABCG2 antibody (PA1869).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human placenta tissue lysates,

Lane 2: human HepG2 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-BCRP/ABCG2 antigen affinity purified polyclonal antibody (Catalog # PA1869) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for BCRP/ABCG2 at approximately 75 kDa. The expected band size for BCRP/ABCG2 is at 72 kDa.

6 Publications Citing This Product

1. PubMed ID: 23426065, Li R, Wu X, Wei H, Tian S. Oncol Lett. 2013 Mar;5(3):877-883. Epub 2013 Jan 2. Characterization Of Side Population Cells Isolated From The Gastric Cancer Cell Line Sgc-7901.
2. PubMed ID: 26563263, Reversion of malignant phenotypes of human glioblastoma cells by γ -elemene through β -catenin-mediated regulation of stemness-, differentiation- and epithelial-to-mesenchymal transition-related molecules
3. PubMed ID: 22274587, Duan J, Mansour Hm, Zhang Y, Deng X, Chen Y, Wang J, Pan Y, Zhao J. Int J Pharm. 2012 Apr 15;426(1-2):193-201. Doi: 10.1016/J.Ijpharm.2012.01.020. Epub 2012 Jan 17. Reversion Of Multidrug Resistance By Co-Encapsulation Of Doxorubicin And Curcumin ...

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