

## **BCRP (ABCG2) Antibody**

Purified Rabbit Polyclonal Antibody Catalog # ABV11644

## **Specification**

## **BCRP (ABCG2) Antibody - Product Information**

Application WB
Primary Accession O9UNQ0
Reactivity Human
Host Rabbit
Clonality Polyclonal
Isotype Rabbit Ig
Calculated MW 72314

# **BCRP (ABCG2) Antibody - Additional Information**

#### **Gene ID 9429**

### **Other Names**

Breast Cancer Resistance Protein, BCRP1, ATP-binding cassette sub-family G member 2, ATP binding cassette sub family G (WHITE) member 2, ABCG2, Mitoxantrone resistance associated protein, MXR, MXR1

## Target/Specificity

BCRP (ABCG2)

### **Formulation**

Each vial contains 5mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg NaN3, 0.05 mg Thimerosal

#### Handling

The vial should be centrifuged to collect the lyophilized solid before reconstituting

### **Background Descriptions**

### **Precautions**

BCRP (ABCG2) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

# **BCRP (ABCG2) Antibody - Protein Information**

# Name ABCG2

Synonyms ABCP, BCRP, BCRP1, MXR

#### **Function**

Broad substrate specificity ATP-dependent transporter of the ATP-binding cassette (ABC) family that actively extrudes a wide variety of physiological compounds, dietary toxins and xenobiotics



from cells (PubMed: <a href="http://www.uniprot.org/citations/11306452" target=" blank">11306452</a>, PubMed:<a href="http://www.uniprot.org/citations/12958161" target="blank">12958161</a>, PubMed:<a href="http://www.uniprot.org/citations/19506252" target="\_blank">19506252</a>, PubMed:<a href="http://www.uniprot.org/citations/20705604" target=" blank">20705604</a>, PubMed:<a href="http://www.uniprot.org/citations/28554189" target=" blank">28554189</a>, PubMed:<a href="http://www.uniprot.org/citations/30405239" target=" blank">30405239</a>, PubMed:<a href="http://www.uniprot.org/citations/31003562" target="blank">31003562</a>). Involved in porphyrin homeostasis, mediating the export of protoporphyrin IX (PPIX) from both mitochondria to cytosol and cytosol to extracellular space, it also functions in the cellular export of heme (PubMed:<a href="http://www.uniprot.org/citations/20705604" target=" blank">20705604</a>, PubMed:<a href="http://www.uniprot.org/citations/23189181" target="\_blank">23189181</a>). Also mediates the efflux of sphingosine-1-P from cells (PubMed:<a href="http://www.uniprot.org/citations/20110355" target=" blank">20110355</a>). Acts as a urate exporter functioning in both renal and extrarenal urate excretion (PubMed: <a  $href="http://www.uniprot.org/citations/19506252" \ target="\_blank">19506252</a>, PubMed:<a href="http://www.uniprot.org/citations/20368174" target="\_blank">20368174</a>, PubMed:<a href="http://www.uniprot.org/citations/20368174" target="_blank">20368174</a>, PubMe$ href="http://www.uniprot.org/citations/22132962" target="\_blank">22132962</a>, PubMed:<a href="http://www.uniprot.org/citations/31003562" target="blank">31003562</a>, PubMed:<a href="http://www.uniprot.org/citations/36749388" target="blank">36749388</a>). In kidney, it also functions as a physiological exporter of the uremic toxin indoxyl sulfate (By similarity). Also involved in the excretion of steroids like estrone 3-sulfate/E1S, 3beta-sulfooxy-androst-5-en-17-one/DHEAS, and other sulfate conjugates (PubMed: <a href="http://www.uniprot.org/citations/12682043" target="\_blank">12682043</a>, PubMed:<a href="http://www.uniprot.org/citations/28554189" target="\_blank">28554189</a>, PubMed:<a href="http://www.uniprot.org/citations/30405239" target="blank">30405239</a>). Mediates the secretion of the riboflavin and biotin vitamins into milk (By similarity). Extrudes pheophorbide a, a phototoxic porphyrin catabolite of chlorophyll, reducing its bioavailability (By similarity). Plays an important role in the exclusion of xenobiotics from the brain (Probable). It confers to cells a resistance to multiple drugs and other xenobiotics including mitoxantrone, pheophorbide, camptothecin, methotrexate, azidothymidine, and the anthracyclines daunorubicin and doxorubicin, through the control of their efflux (PubMed:<a href="http://www.uniprot.org/citations/11306452" target=" blank">11306452</a>, PubMed:<a href="http://www.uniprot.org/citations/12477054" target=" blank">12477054</a>, PubMed:<a href="http://www.uniprot.org/citations/15670731" target=" blank">15670731</a>, PubMed:<a href="http://www.uniprot.org/citations/18056989" target="blank">18056989</a>, PubMed:<a href="http://www.uniprot.org/citations/31254042" target="blank">31254042</a>). In placenta, it limits the penetration of drugs from the maternal plasma into the fetus (By similarity). May play a role in early stem cell self-renewal by blocking differentiation (By similarity).

# **Cellular Location**

Cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Mitochondrion membrane; Multi-pass membrane protein. Note=Enriched in membrane lipid rafts

### **Tissue Location**

Highly expressed in placenta (PubMed:9850061). Low expression in small intestine, liver and colon (PubMed:9861027) Expressed in brain (at protein level) (PubMed:12958161)

# **BCRP (ABCG2) Antibody - Protocols**

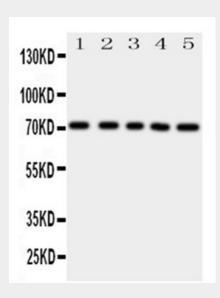
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides



- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# BCRP (ABCG2) Antibody - Images



Lane1: Hela cell lysate; Lane2: SW620 cell lysate; Lane3: MCF-7 cell lysate; Lane4: SKOV cell lysate; Lane5: Jurkat cell lysate

## **BCRP (ABCG2) Antibody - Background**

BCRP, also called ABCG2, is encoded by the ABCG2 gene. BCRP is a well-characterized ABC-transporter (which limits uptake or mediates efflux of a wide variety of drugs, carcinogens, dietary toxins across cellular membranes). It is an ATP-dependent pump with broad substrate specificity. Significant expression has been observed in the placenta and it has been shown to have a role in protecting the fetus from xenobiotics in the maternal circulation. It plays protective roles in blocking absorption at the apical membrane of the intestine, and at the blood-testis barrier, the blood-brain barrier and the membranes of hematopoietic progenitor and other stem cells. At the apical membranes of the liver and kidney, it enhances excretion of xenobiotics. In the lactating mammary gland, it has a role on excreting vitamins such as riboflavin and biotin into milk.

# **BCRP (ABCG2) Antibody - Citations**

 Application of JC1 for non-toxic isolation of cells with MDR transporter activity by flow cytometry.