

Basic Information

Product Name	Anti-BCRP/ABCG2 Antibody		
Gene Name	ABCG2		
Source	Rabbit		
Isotype	IgG		
Species Reactivity	mouse, rat		
Tested Application	WB, IHC		
Contents	500 ug/ml antibody with PBS , 0.02% NaN ₃ , 1 mg BSA and 50% glycerol.		
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminal of human ABCG2(742-755aa, TIAYLKLLFLKKYS), identical to the related mouse and rat sequence.		
concentration	500 ug/ml		
Purification	Immunogen affinity purified.		
Observed MW	65-80KD		
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.		

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

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)^oConcluded 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.

Selected Validation Data

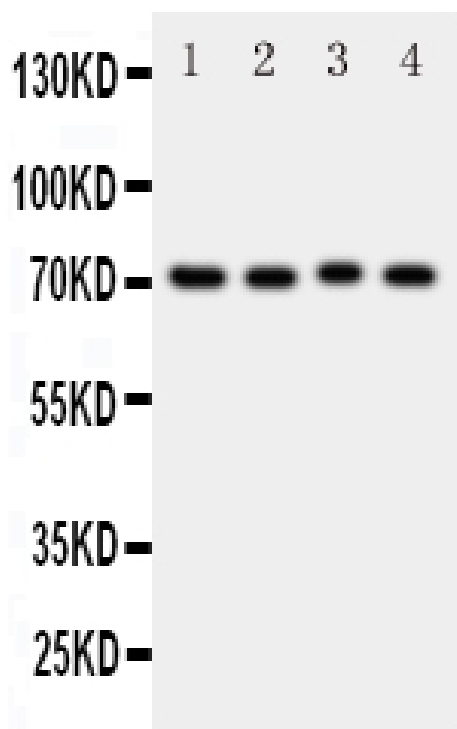


Figure 1. Western blot analysis of anti- BCRP/ABCG2 antibody (BA3746).The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: Rat kidney Tissue Lysates,Lane 2: Rat intestine Tissue Lysates,Lane 3: mouse Kidney Tissue Lysates,Lane 4: Mouse intestine Tissue Lysates.Use rabbit anti- BCRP/ABCG2 1:1000, probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for BCRP/ABCG2 at approximately 72KD. The expected band size for BCRP/ABCG2 is at 72KD.

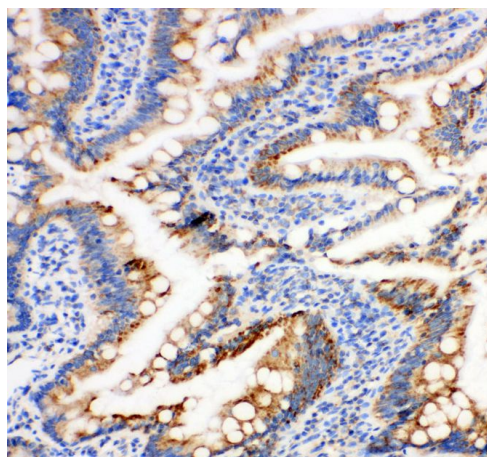


Figure 2.IHC analysis using anti- BCRP/ABCG2 antibody (BA3746). detected in paraffin-embedded section of rat intestine tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.