

Basic Information

Product Name	Anti-BCRP/ABCG2 Antibody		
Gene Name	ABCG2		
Source	Rabbit		
Isotype	IgG		
Species Reactivity	human, mouse, rat		
Tested Application	WB, IHC, FCM, ELISA		
Contents	500 ug/ml antibody with PBS , 0.02% NaN ₃ , 1 mg BSA and 50% glycerol.		
Immunogen	E.coli-derived human BCRP/ABCG2 recombinant protein (Position: M1-R378).		
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	
	ELISA:	1:100-1000	
	Flow cytometry (FCM):	1-3 μ g/1x10 ⁶ cells	

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. It is mapped on 4q22.1. 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. 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. 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

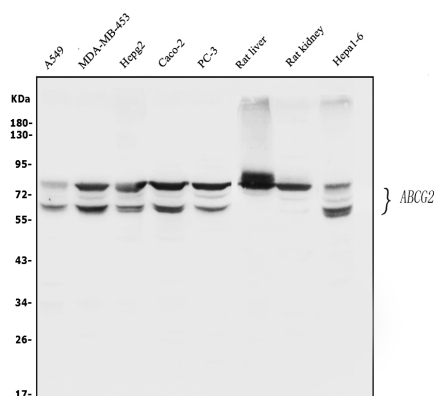


Figure 1. Western blot analysis of anti- BCRP/ABCG2 antibody (A00457-2). The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human A549 whole cell lysates, Lane 2: human MDA-MB-453 whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human CACO-2 whole cell lysates, Lane 5: human PC-3 whole cell lysates, Lane 6: Rat liver tissue lysates, Lane 7: Rat kidney tissue lysates, Lane 8: Mouse HEP1-6 whole cell 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 65-80 kDa. The expected band size for BCRP/ABCG2 is at 72 kDa.

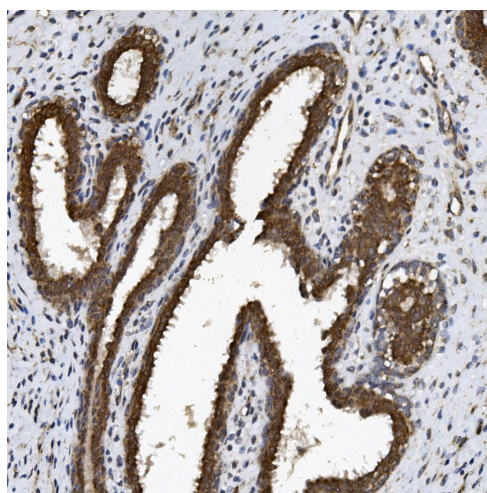


Figure 2. IHC analysis using anti- BCRP/ABCG2 antibody (A00457-2). detected in paraffin-embedded section of human mammary cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

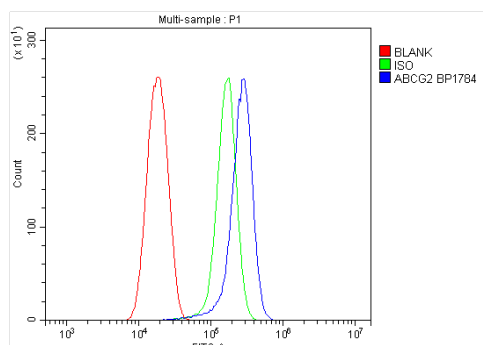


Figure 4. Flow cytometry analysis of SiHa cell (1x10⁶) DyLight 488 conjugated goat anti-rabbit IgG (blue) was used as secondary antibody. Isotype control antibody (Green line) was rabbit IgG DyLight 488. Unlabelled sample (Red line).