

Basic Information

Product Name	Anti-ABCG5 Antibody
Gene Name	ABCG5
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human
Tested Application	WB, FCM
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human ABCG5.
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	73 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Flow Cytometry (Fixed):1:50-200

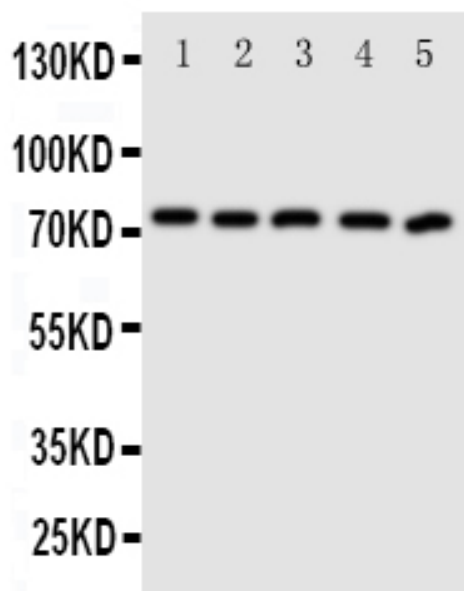
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

ABCG5 (Atp-binding cassette, subfamily g, member 5) also known as STEROLIN 1, is a protein that in humans is encoded by the ABCG5 gene. The protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. This protein is a member of the White subfamily. The protein encoded by this gene functions as a half-transporter to limit intestinal absorption and promote biliary excretion of sterols. The ABCG5 gene contains 13 exons and spans about 28 kb. The ABCG5 gene is mapped on 2p21. It is expressed in a tissue-specific manner in the liver, colon, and intestine. This gene is tandemly arrayed on chromosome 2, in a head-to-head orientation with family member ABCG8. Mutations in this gene may contribute to sterol accumulation and atherosclerosis, and have been observed in patients with sitosterolemia. Small (2003) reviewed the role of ABC transporters in secretion of cholesterol from liver into bile, particularly the role of ABCG5/ABCG8. The ABCG5 and ABCG8 genes are an example of closely neighboring genes in a head-to-head orientation that, when mutated, cause the same phenotype.

Selected Validation Data



Western blot analysis of ABCG5 using anti-ABCG5 antibody (BA3258-2).

The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: MCF-7 whole cell lysates,

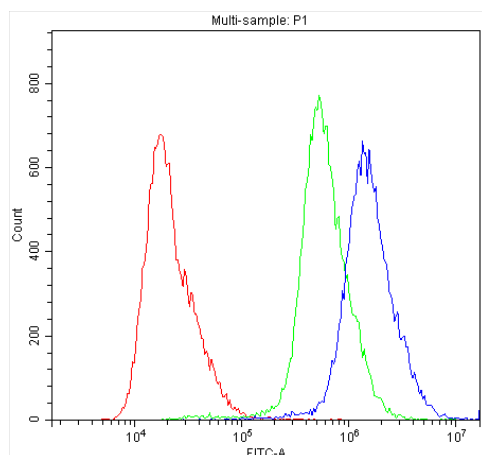
Lane 2: A549 whole cell lysates,

Lane 3: HT1080 whole cell lysates,

Lane 4: U87 whole cell lysates,

Lane 5: SKOV whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-ABCG5 antigen affinity purified polyclonal antibody (BA3258-2) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for ABCG5 at approximately 73 kDa. The expected band size for ABCG5 is at 73 kDa.



Flow Cytometry analysis of A431 cells using anti-ABCG5 antibody (BA3258-2).

Overlay histogram showing A431 cells stained with BA3258-2 (Blue line).

To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ABCG5 Antibody (BA3258-2) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.