

ABCG5 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1821a**Specification****ABCG5 Antibody - Product Information**

| | |
|-------------------|------------------------|
| Application | E, WB, FC, IHC |
| Primary Accession | Q9H222 |
| Reactivity | Human |
| Host | Mouse |
| Clonality | Monoclonal |
| Isotype | IgG1 |
| Calculated MW | 72.5kDa KDa |

Description

The protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). 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. 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.

Immunogen

Purified recombinant fragment of human ABCG5 (AA: 306-367) expressed in E. Coli.

Formulation

Purified antibody in PBS with 0.05% sodium azide

ABCG5 Antibody - Additional Information

Gene ID 64240

Other Names

ATP-binding cassette sub-family G member 5, Sterolin-1, ABCG5

Dilution

E~~1/10000

WB~~1/500 - 1/2000

FC~~1/200 - 1/400

IHC~~1/200 - 1/1000

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

ABCG5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ABCG5 Antibody - Protein Information

Name ABCG5 ([HGNC:13886](#))

Function

ABCG5 and ABCG8 form an obligate heterodimer that mediates Mg(2+)- and ATP-dependent sterol transport across the cell membrane (PubMed:[27144356](http://www.uniprot.org/citations/27144356)). Plays an essential role in the selective transport of dietary plant sterols and cholesterol in and out of the enterocytes and in the selective sterol excretion by the liver into bile (PubMed:[11099417](http://www.uniprot.org/citations/11099417), PubMed:[11138003](http://www.uniprot.org/citations/11138003), PubMed:[27144356](http://www.uniprot.org/citations/27144356), PubMed:[15054092](http://www.uniprot.org/citations/15054092)). Required for normal sterol homeostasis (PubMed:[11099417](http://www.uniprot.org/citations/11099417), PubMed:[11138003](http://www.uniprot.org/citations/11138003), PubMed:[15054092](http://www.uniprot.org/citations/15054092)). The heterodimer with ABCG8 has ATPase activity (PubMed:[16893193](http://www.uniprot.org/citations/16893193), PubMed:[20210363](http://www.uniprot.org/citations/20210363), PubMed:[27144356](http://www.uniprot.org/citations/27144356)).

Cellular Location

Cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein

Tissue Location

Strongly expressed in the liver, lower levels in the small intestine and colon.

ABCG5 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

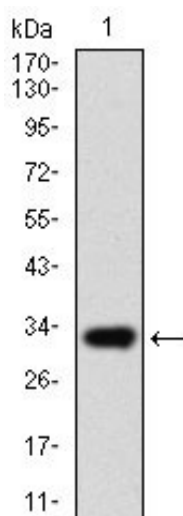
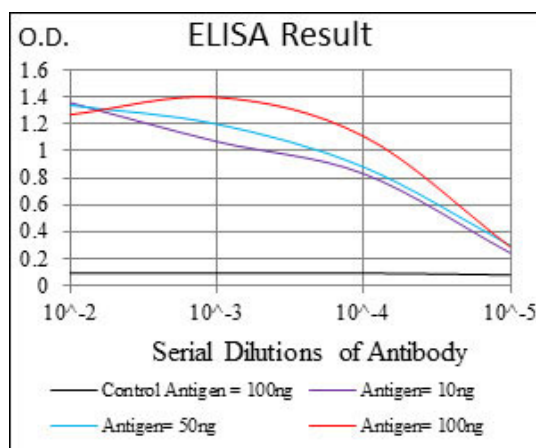


Figure 1: Western blot analysis using ABCG5 mAb against human ABCG5 recombinant protein. (Expected MW is 32.7 kDa)

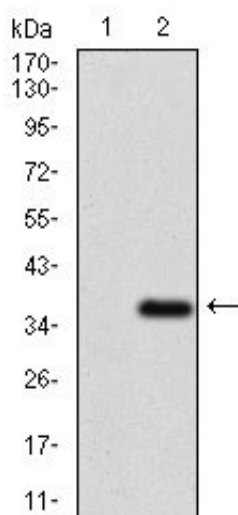


Figure 2: Western blot analysis using ABCG5 mAb against HEK293 (1) and ABCG5 (AA: 306-367)-hlgGfc transfected HEK293 (2) cell lysate.

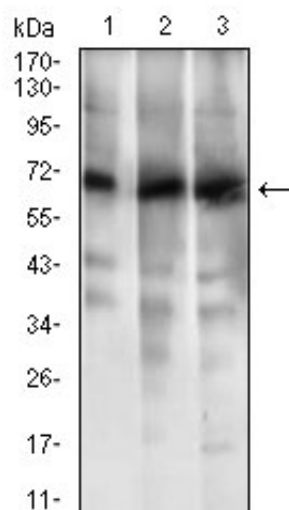


Figure 3: Western blot analysis using ABCG5 mouse mAb against HL7702 (1), RAJI (2) and Jurkat (3) cell lysate.

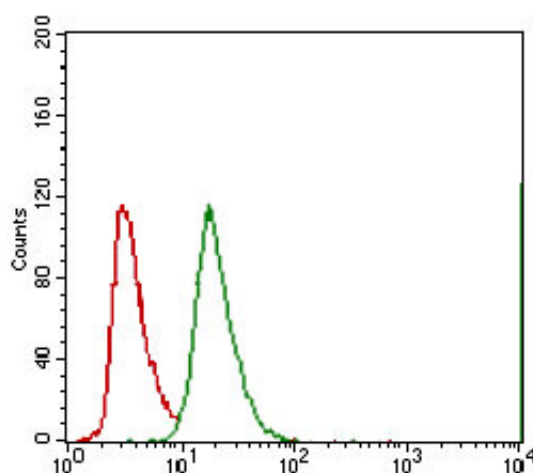


Figure 4: Flow cytometric analysis of A549 cells using ABCG5 mouse mAb (green) and negative control (red).

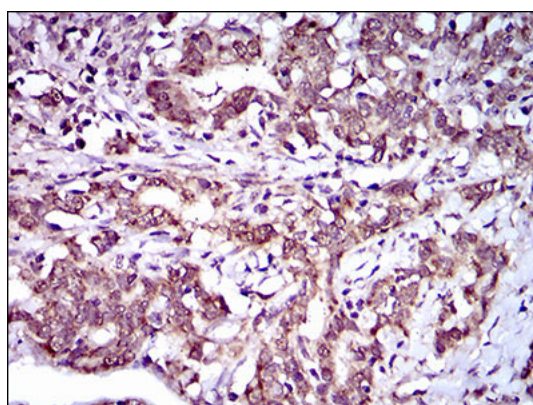


Figure 5: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using ABCG5 mouse mAb with DAB staining.

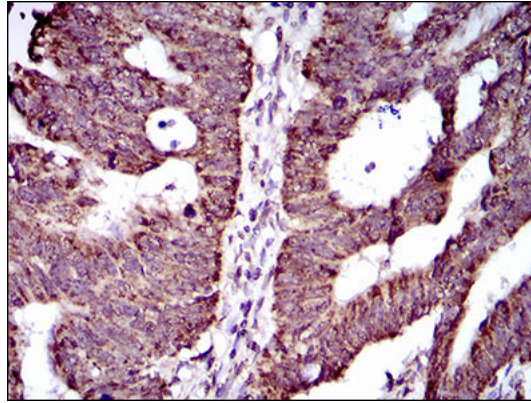


Figure 6: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using ABCG5 mouse mAb with DAB staining.

ABCG5 Antibody - Background

The protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). 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. 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. ; ;

ABCG5 Antibody - References

1. PLoS One. 2012;7(5):e37972.
2. Biochemistry. 2010 Apr 27;49(16):3403-11.