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# ABCG8 Rabbit pAb

Catalog # AP96303

## Product Information

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| **Application** | WB, IHC-P, IHC-F, IF, E |
| **Primary Accession** | Q9H221 |
| **Other Accession** | Q9H221 |
| **Reactivity** | Human |
| **Predicted** | Rat, Pig, Mouse, Rabbit, Dog, Horse |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 75679 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human ABCG8 |
| **Epitope Specificity** | 566-673/673 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SUBCELLULAR LOCATION** | Membrane; Multi-pass membrane protein (Probable). |
| **SIMILARITY** | Belongs to the ABC transporter superfamily. ABCG family. Eye pigment precursor importer (TC 3.A.1.204) subfamily. Contains 1 ABC transmembrane type-2 domain. Contains 1 ABC transporter domain. |
| **SUBUNIT** | May form heterodimers with ABCG5 or be tightly coupled to ABCG5 along a pathway regulating diatery-sterol absorption and excretion. |
| **DISEASE** | Genetic variations in ABCG8 can be associated with susceptibility to gallbladder disease type 4 (GBD4) [MIM:611465]. With an overall prevalence of 10-20%, gallstone disease (cholelithiasis) represents one of the most frequent and economically relevant health problems of industrialized countries. Defects in ABCG8 are a cause of sitosterolemia (STSL) [MIM:210250]; also known as phytosterolemia or shellfish sterolemia. It is a rare autosomal recessive disorder characterized by increased intestinal absorption of all sterols including cholesterol, plant and shellfish sterols, and decreased biliary excretion of dietary sterols into bile. Sitosterolemia patients have hypercholesterolemia, very high levels of plant sterols in the plasma, and frequently develop tendon and tuberous xanthomas, accelerated atherosclerosis and premature coronary artery disease. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | 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 to exclude non-cholesterol sterol entry at the intestinal level, promote excretion of cholesterol and sterols into bile, and to facilitate transport of sterols back into the intestinal lumen. It is expressed in a tissue-specific manner in the liver, intestine, and gallbladder. This gene is tandemly arrayed on chromosome 2, in a head-to-head orientation with family member ABCG5. Mutations in this gene may contribute to sterol |

accumulation and atherosclerosis, and have been observed in patients with sitosterolemia. [provided by RefSeq, Jul 2008].

## Additional Information

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| **Gene ID** | 64241 |
| **Other Names** | GBD4; STSL; STSL1; ABCG8_HUMAN; ABCG8; Sterolin-2; 7.6.2.-; ATP binding cassette subfamily G member 8; ATP-binding cassette, sub-family G (WHITE), member 8 (sterolin 2); ATP-binding cassette, sub-family G (WHITE), member 8; gallbladder disease 4; sterolin 2 |
| **Target/Specificity** | Strongly expressed in the liver, lower levels in the small intestine and colon. Detectable in a wide variety of human tissues. |
| **Dilution** | WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000 |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

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| **Name** | ABCG8 ( HGNC:13887) |
| **Function** | ABCG5 and ABCG8 form an obligate heterodimer that mediates Mg(2+)- and ATP-dependent sterol transport across the cell membrane. Plays an essential role in the selective transport of the dietary cholesterol in and out of the enterocytes and in the selective sterol excretion by the liver into bile (PubMed:11099417, PubMed:11452359, PubMed:15054092, PubMed:27144356). Required for normal sterol homeostasis (PubMed:11099417, PubMed:11452359, PubMed:15054092). The heterodimer with ABCG5 has ATPase activity (PubMed:16893193, PubMed:20210363, PubMed:27144356). |
| **Cellular Location** | Cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein |
| **Tissue Location** | Predominantly expressed in the liver (PubMed:11099417, PubMed:11452359). Low expression levels in the small intestine and colon (PubMed:11099417). Very low levels in other tissues, including brain, heart and spleen (PubMed:11452359) |

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.