

ABCB4 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP6112a**Specification**

ABCB4 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [P21439](#)**ABCB4 Antibody (Center) Blocking Peptide - Additional Information**

Gene ID 5244

Other Names

Multidrug resistance protein 3, ATP-binding cassette sub-family B member 4, P-glycoprotein 3, ABCB4, MDR3, PGY3

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6112a](/product/products/AP6112a) was selected from the Center region of human ABCB4. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ABCB4 Antibody (Center) Blocking Peptide - Protein InformationName ABCB4 ([HGNC:45](#))**Function**

[Isoform 1]: Energy-dependent phospholipid efflux translocator that acts as a positive regulator of biliary lipid secretion. Functions as a floppase that translocates specifically phosphatidylcholine (PC) from the inner to the outer leaflet of the canalicular membrane bilayer into the canaliculi of hepatocytes. Translocation of PC makes the biliary phospholipids available for extraction into the canaliculi lumen by bile salt mixed micelles and therefore protects the biliary tree from the detergent activity of bile salts (PubMed: [7957936](http://www.uniprot.org/citations/7957936), PubMed: [8898203](http://www.uniprot.org/citations/8898203), PubMed: [9366571](http://www.uniprot.org/citations/9366571), PubMed: [17523162](http://www.uniprot.org/citations/17523162), PubMed: [23468132](http://www.uniprot.org/citations/23468132), PubMed: [24806754](http://www.uniprot.org/citations/24806754))

target="_blank">24806754, PubMed:24723470, PubMed:24594635, PubMed:21820390, PubMed:31873305). Plays a role in the recruitment of phosphatidylcholine (PC), phosphatidylethanolamine (PE) and sphingomyelin (SM) molecules to nonraft membranes and to further enrichment of SM and cholesterol in raft membranes in hepatocytes (PubMed:23468132). Required for proper phospholipid bile formation (By similarity). Indirectly involved in cholesterol efflux activity from hepatocytes into the canalicular lumen in the presence of bile salts in an ATP-dependent manner (PubMed:24045840). Promotes biliary phospholipid secretion as canaliculi-containing vesicles from the canalicular plasma membrane (PubMed:9366571, PubMed:28012258). In cooperation with ATP8B1, functions to protect hepatocytes from the deleterious detergent activity of bile salts (PubMed:21820390). Does not confer multidrug resistance (By similarity).

Cellular Location

Cell membrane; Multi-pass membrane protein {ECO:0000255|PROSITE-ProRule:PRU00441}. Apical cell membrane; Multi-pass membrane protein {ECO:0000255|PROSITE-ProRule:PRU00441}. Membrane raft. Cytoplasm Cytoplasmic vesicle, clathrin-coated vesicle {ECO:0000250|UniProtKB:Q08201}. Note=Localized at the apical canalicular membrane of the epithelial cells lining the lumen of the bile canaliculi and biliary ductules (By similarity). Transported from the Golgi to the apical bile canalicular membrane in a RACK1-dependent manner (PubMed:19674157). Redistributed into pseudocanaliculi formed between cells in a bezafibrate- or PPARA-dependent manner (PubMed:15258199). Localized preferentially in lipid nonraft domains of canalicular plasma membranes (PubMed:23468132) {ECO:0000250|UniProtKB:P21440, ECO:0000269|PubMed:15258199, ECO:0000269|PubMed:19674157, ECO:0000269|PubMed:23468132}

ABCB4 Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

ABCB4 Antibody (Center) Blocking Peptide - Images

ABCB4 Antibody (Center) Blocking Peptide - Background

The membrane-associated protein encoded ABCB4 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 MDR/TAP subfamily. Members of the MDR/TAP subfamily are involved in multidrug resistance as well as antigen presentation. This gene encodes a full transporter and member of the p-glycoprotein family of membrane proteins with phosphatidylcholine as its substrate. The function of this protein has not yet been determined; however, it may involve transport of phospholipids from liver hepatocytes into bile. Alternative splicing of this gene results in several products of undetermined function.

ABCB4 Antibody (Center) Blocking Peptide - References

Eloranta, M.L., et al., Eur J Obstet Gynecol Reprod Biol 105(2):132-135 (2002). Eloranta, M.L., et al., Eur J Obstet Gynecol Reprod Biol 104(2):109-112 (2002). Jacquemin, E., Semin. Liver Dis.

21(4):551-562 (2001).Smit, J.J., et al., Biochim. Biophys. Acta 1261(1):44-56 (1995).Ruetz, S., et al., Cell 77(7):1071-1081 (1994).