

ABCB4 Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6112A**Specification**

ABCB4 Antibody (Center) - Product Information

Application	WB, IHC-P,E
Primary Accession	P21439
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	624-654

ABCB4 Antibody (Center) - 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

This ABCB4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 624-654 amino acids from the Central region of human ABCB4.

Dilution

WB~~1:500

IHC-P~~1:50~100

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

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

Precautions

ABCB4 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

ABCB4 Antibody (Center) - Protein Information**Name** 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:[17523162](#), PubMed:[21820390](#), PubMed:[23468132](#), PubMed:[24594635](#), PubMed:[24723470](#), PubMed:[24806754](#), PubMed:[31873305](#), PubMed:[7957936](#), PubMed:[8898203](#), PubMed:[9366571](#)). 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:[28012258](#), PubMed:[9366571](#)). 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

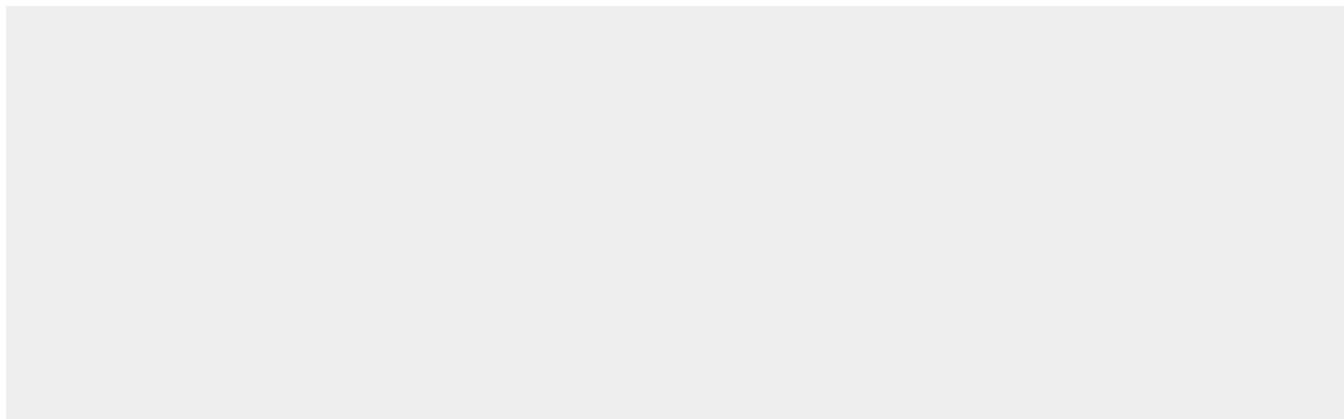
Cell membrane; Multi-pass membrane protein {ECO:0000255|PROSITE-ProRule:PRU00441}. Apical cell membrane; Multi-pass membrane protein {ECO:0000255|PROSITE-ProRule:PRU00441}. Membrane raft. Cytoplasm Cytoplasmic vesicle, clathrin-coated vesicle {ECO:0000250|UniProtKB:Q08201}. Note=Localized at the apical 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 pseudocanalicular 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}

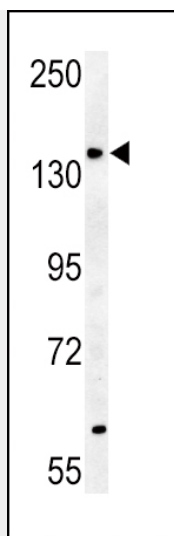
ABCB4 Antibody (Center) - Protocols

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

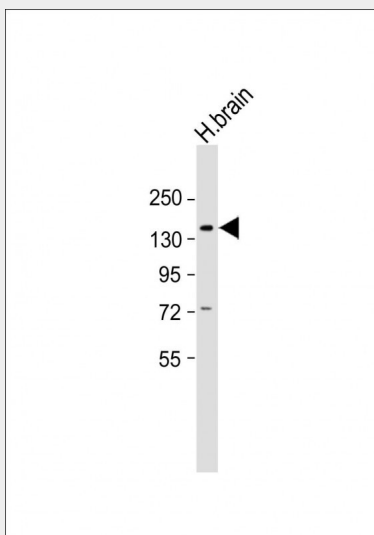
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ABCB4 Antibody (Center) - Images

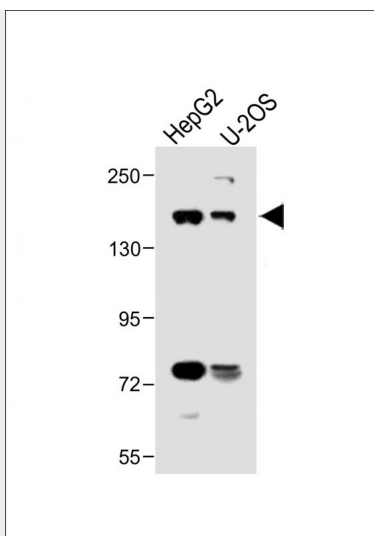




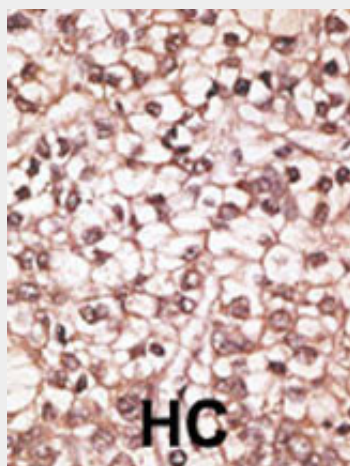
ABCB4-S639 (Cat. #AP6112a) western blot analysis in mouse heart tissue lysates (35ug/lane). This demonstrates the ABCB4 antibody detected ABCB4 protein (arrow).



Anti-hABCB4-S639 at 1:2000 dilution + Human brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 142 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-hABCB4-S639 at 1:500 dilution Lane 1: HepG2 whole cell lysate Lane 2: U-2OS whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 142 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

ABCB4 Antibody (Center) - 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) - 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).

ABCB4 Antibody (Center) - Citations

- [Hepatic lipid accumulation in apolipoprotein C-I-deficient mice is potentiated by cholesteryl ester transfer protein.](#)