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San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-ABCB4 Picoband Antibody

Catalog # ABO11966

Specification

Anti-ABCB4 Picoband Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	P21439
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Phosphatidylcholine translocator ABCB4(ABCB4) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-ABCB4 Picoband Antibody - Additional Information

Gene ID 5244

Other Names
Phosphatidylcholine translocator ABCB4, ATP-binding cassette sub-family B member 4 {ECO:0000312|HGNC:HGNC:45}, Multidrug resistance protein 3, 3.6.3.44, P-glycoprotein 3, ABCB4 (HGNC:45)

Calculated MW
141523 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Cell membrane; Multi-pass membrane protein.

Protein Name
Phosphatidylcholine translocator ABCB4

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human ABCB4 recombinant protein (Position: A601-A720). Human ABCB4 shares 79% amino acid (aa) sequence identity with both mouse and rat ABCB4.

Purification

Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the ABC transporter superfamily. ABCB family. Multidrug resistance exporter (TC 3.A.1.201) subfamily.

Anti-ABCB4 Picoband Antibody - 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).

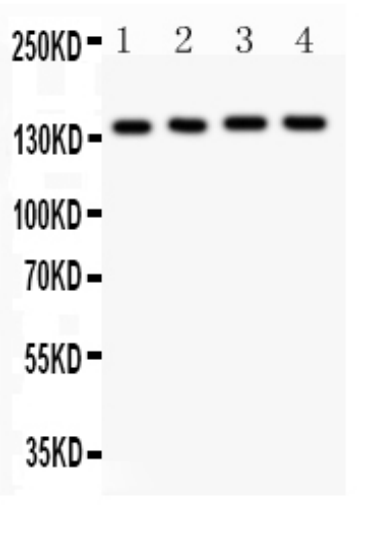
Transported from the Golgi to the apical bile canalicular membrane in a RACK1-dependent manner (PubMed:19674157). Redistributed into pseudocanaliculi formed between cells in a bezafibrate- or PPARA-dependent manner (PubMed:15258199). Localized preferentially in lipid nonraft domains of canalicular plasma membranes (PubMed:23468132) {ECO:0000250|UniProtKB:P21440, ECO:0000269|PubMed:15258199, ECO:0000269|PubMed:19674157, ECO:0000269|PubMed:23468132}

Anti-ABCB4 Picoband 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 Cytomety
- Cell Culture

Anti-ABCB4 Picoband Antibody - Images



Anti- ABCB4 Picoband antibody, ABO11966, Western blottingAll lanes: Anti ABCB4 (ABO11966) at 0.5ug/mlLane 1: MCF-7 Whole Cell Lysate at 40ugLane 2: SW620 Whole Cell Lysate at 40ugLane 3: 22RV1 Whole Cell Lysate at 40ugLane 4: SKOV Whole Cell Lysate at 40ugPredicted bind size: 142KDObserved bind size: 142KD

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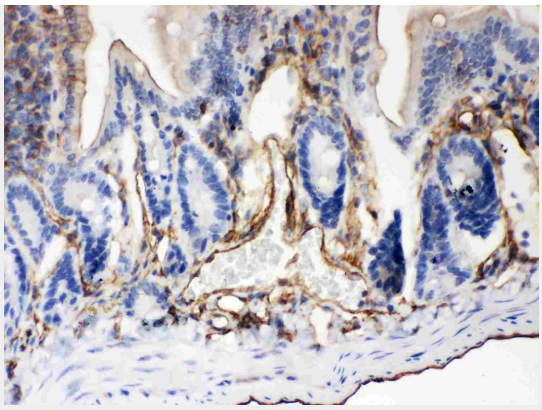
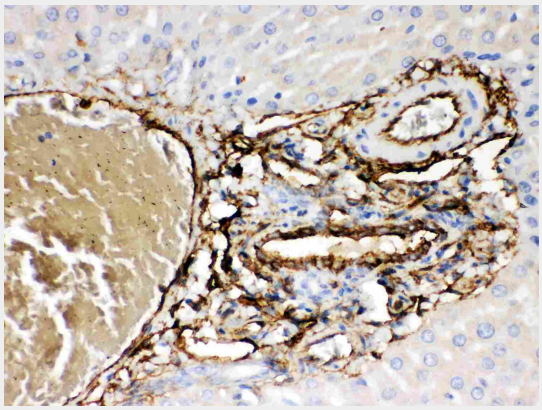
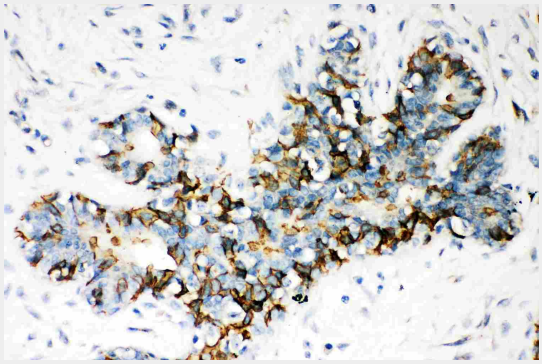


Anti- ABCB4 Picoband antibody, ABO11966, IHC(P)IHC(P): Mouse Intestine Tissue



Anti- ABCB4 Picoband antibody, ABO11966, IHC(P)IHC(P): Rat Liver Tissue



Anti- ABCB4 Picoband antibody, ABO11966, IHC(P)IHC(P): Human Mammary Cancer Tissue

Anti-ABCB4 Picoband Antibody - Background

Adenosine triphosphate-binding cassette subfamily B, member 4 (ABCB4), also called MDR3, is a protein that in humans is encoded by the ABCB4 gene. The membrane-associated protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. The ABCB4 gene contains 28 exons and 27 of these contain coding sequences for the two homologous halves of the protein that correlate with functional domains. ABCB4 gene mutations represent a genetic factor involved in this peculiar form of cholesterol gallstone disease in adults.