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Anti-ABCB4 Antibody

Catalog # ABO11397

Product Information

Application	WB
Primary Accession	P21439
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Phosphatidylcholine translocator ABCB4(ABCB4) detection. Tested with WB in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

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
Application Details	Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Cell membrane; Multi-pass membrane protein.
Source	Eukaryota
Protein Name	Phosphatidylcholine translocator ABCB4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human ABCB4(1-20aa MDLEAAKNGTAWRPTSAEGD).
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.

Protein Information

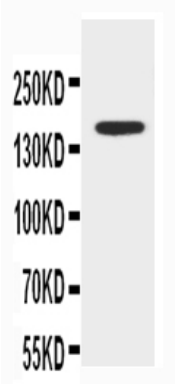
Name	ABCB4 (HGNC:45)
Function	[Isoform 1]: Energy-dependent phospholipid efflux translocator that acts as a positive regulator of biliary lipid secretion. Functions as a floppase that translocates specifically phosphatidylcholine (PC) from the inner to the outer leaflet of the canalicular membrane bilayer 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}

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. MDR1 and MDR3 constitute the human P-glycoprotein gene family. The MDR3 gene contains 28 exons and 27 of these contain coding sequences for the two homologous halves of the protein that correlate with functional domains. MDR3 gene mutations represent a genetic factor involved in this peculiar form of cholesterol gallstone disease in adults.

Images

Anti-ABCB4 antibody, ABO11397, Western blottingWB: MCF-7 Cell Lysate



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