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Datasheet for ABIN3133294  
**ABCB4 Protein (AA 352-708) (His tag)**

### Overview

Quantity:	1 mg
Target:	ABCB4
Protein Characteristics:	AA 352-708
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ABCB4 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

### Product Details

Sequence: DAFANARGAA YVIFDIIDNN PKIDSFSEK HKPDNIKGNL EFSDVHFSYP SRANIKILKG  
LNLKVKSGQT VALVGNVSGCG KSTTVQLLQR LYDPTEGKIS IDGQDIRNFN VRCLREIIGV  
VSQEPVLFST TIAENIRYGR GNVTMDEIEK AVKEANAYDF IMKLPQKFDL LVGDRGAQLS  
GGQKQRIAIA RALVRNPKIL LLDEATSALD TESEAEVQAA LDKAREGRTT IMAHRLSTI  
RNADVIAGFE DGVIVEEQGSH SELMKKEGIY FRLVNMQTAG SQILSEEFV ELSDEKAAGD  
VAPNGWKARI FRNSTKKSLLK SPHQNRLDEE TNELDANVPP VSFLKVLKLN KTEWPYF

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
  - Mouse Abcb4 Protein (raised in E. Coli) purified by multi-step, protein-specific process to ensure crystallization grade.
  - State-of-the-art algorithm used for plasmid design (Gene synthesis).

## Product Details

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This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

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Purification:	Two step purification of proteins expressed in bacterial culture: <ol style="list-style-type: none"><li>1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.</li><li>2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.</li></ol>
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Endotoxin has not been removed. Please contact us if you require endotoxin removal.
Grade:	Crystallography grade

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## Target Details

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Target:	ABCB4
Alternative Name:	Abcb4 ( <a href="#">ABCB4 Products</a> )
Background:	Energy-dependent phospholipid efflux translocator that acts as a positive regulator of biliary

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## Target Details

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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 between 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:8106172, PubMed:7912658, PubMed:7592705, PubMed:7814632, PubMed:8725158, 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 (By similarity). Required for proper phospholipid bile formation (PubMed:8106172). Indirectly involved in cholesterol efflux activity from hepatocytes into the canalicular lumen in the presence of bile salts in an ATP-dependent manner (PubMed:7814632, PubMed:8725158). May promote biliary phospholipid secretion as canaliculi-containing vesicles from the canalicular plasma membrane (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 (PubMed:1990275). {ECO:0000250|UniProtKB:P21439, ECO:0000269|PubMed:1990275, ECO:0000269|PubMed:21820390, ECO:0000269|PubMed:7592705, ECO:0000269|PubMed:7814632, ECO:0000269|PubMed:7912658, ECO:0000269|PubMed:8106172, ECO:0000269|PubMed:8725158, ECO:0000269|PubMed:9366571}.

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Molecular Weight: 40.5 kDa Including tag.

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UniProt: [P21440](#)

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Pathways: [Regulation of Lipid Metabolism by PPARAlpha](#)

## Application Details

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Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

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Comment: Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

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Restrictions: For Research Use only

## Handling

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Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)