

Datasheet for ABIN3113133

ABCB4 Protein (AA 1-1286) (Strep Tag)



[Go to Product page](#)

Overview

Quantity:	250 µg
Target:	ABCB4
Protein Characteristics:	AA 1-1286
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ABCB4 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Brand:	AliCE®
Sequence:	<p>MDLEAAKNGT AWRPTSAEGD FELGISSKQK RKKTKTVKMI GVLTLFRYSD WQDKLFMSLG</p> <p>TIMAIAHGSG LPLMMIVFGE MTDKFVDTAG NFSFPVNFSL SLLNPGKILE EEMTRYAYYY</p> <p>SGLGAGVLVA AYIQVSFWTL AAGRQIRKIR QKFFHAILRQ EIGWFDINDT TELNTRLTDD</p> <p>ISKISEGIGD KVGMMFFQAVA TFFAGFIVGF IRGWKLTLLV MAISPILGLS AAVWAKILSA</p> <p>FSDKELAAYA KAGAVAEEL GAIRTVIAFG GQNKELERYQ KHLENAKEIG IKKAISANIS</p> <p>MGIAFLLIYA SYALAFWYGS TLVISKEYTI GNAMTVFFSI LIGAFSVGQA APCIDAFANA</p> <p>RGAAYVIFDI IDNNPKIDSF SERGHKPDSI KGNLEFNDVH FSYPSRANVK ILKGLNLKVQ</p> <p>SGQTVALVGS SGCCKSTTVQ LIQRLYDPDE GTINIDGQDI RNFNVNYLRE IIGVVSQEPV</p> <p>LFSTTIAENI CYGRGNVTMD EIKKAVKEAN AYEIMKLPQ KFDTLVGERG AQLSGGQKQR</p> <p>IAIARALVRN PKILLLDEAT SALDTESEAE VQAALDKARE GRTTIVIAHR LSTVRNADVI</p> <p>AGFEDGVIVE QGSHSELMKK EGVYFKLVNM QTSGSQIQSE EFELNDEKAA TRMAPNGWKS</p>

RLFRHSTQKN LKNSQMCQKS LDVETDGLA NVPPVSFLKV LKLNKTEWPY FVVGTVCAIA
NGGLQPAFSV IFSEIIAIFG PGDDAVKQK CNIFSLIFL LGIISFFTF LQGFTFGKAG EILTRRLRSM
AFKAMLRQDM SWFDDHKNST GALSTRLATD AAQVQGATGT RLALIAQNIA NLGTGIIISF
IYGWQLTLLL LAVVPIAVS GIVEMKLLAG NAKRDKKELE AAGKIATEAI ENIRTVVSLT
QERKFESMYV EKLYGPYRNS VQKAHIYGIT FSISQAFMYF SYAGCFRFGA YLIVNGHMRP
RDVILVFSAI VFGAVALGHA SSFAPDYAKA KLSAAHLFML FERQPLIDSY SEEGLKPKDF
EGNITFNEVV FNYPTRANVP VLQGLSLEV KQQTALVGS SGCGKSTVVQ LLERFYDPLA
GTVFVDFGFQ LLDGQEAKKL NVQWLRAQLG IVSQEPILFD CSIAENIAYG DNSRVVSQDE
IVSAAKAANI HPFIETLPHK YETRVGDKGT QLGGGQKQRI AIARALIRQP QILLDEATS
ALDTESEKVV QEALDKAREG RTCIVIAHRL STIQNADLIV VFQNGRVKEH GTHQQLLAQK
GIYFSMVSQ AGTQNL

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

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

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system -

Product Details

all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
---------------	--

Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
---------	--

Grade:	custom-made
--------	-------------

Target Details

Target:	ABCB4
---------	-------

Alternative Name:	ABCB4 (ABCB4 Products)
-------------------	--

Background:	<p>Phosphatidylcholine translocator ABCB4 (EC 7.6.2.1) (ATP-binding cassette sub-family B member 4) (Multidrug resistance protein 3) (P-glycoprotein 3),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, PubMed:8898203, PubMed:9366571, PubMed:17523162, PubMed:23468132, PubMed: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</p>
-------------	--

Target Details

(PubMed:21820390). Does not confer multidrug resistance (By similarity).
{ECO:0000250|UniProtKB:P21440, ECO:0000269|PubMed:17523162,
ECO:0000269|PubMed:21820390, ECO:0000269|PubMed:23468132,
ECO:0000269|PubMed:24045840, ECO:0000269|PubMed:24594635,
ECO:0000269|PubMed:24723470, ECO:0000269|PubMed:24806754,
ECO:0000269|PubMed:28012258, ECO:0000269|PubMed:31873305,
ECO:0000269|PubMed:7957936, ECO:0000269|PubMed:8898203,
ECO:0000269|PubMed:9366571}.

Molecular Weight: 141.5 kDa

UniProt: [P21439](#)

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

Application Details

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.

Comment: ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

Handling

Handling Advice:	Avoid repeated freeze-thaw cycles.
------------------	------------------------------------

Storage:	-80 °C
----------	--------

Storage Comment:	Store at -80°C.
------------------	-----------------

Expiry Date:	12 months
--------------	-----------