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Datasheet for ABIN3118340

ABCB9 Protein (AA 1-766) (Strep Tag)

1 Image

Overview

Quantity:	1 mg
Target:	ABCB9
Protein Characteristics:	AA 1-766
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ABCB9 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MRLWKAVVVT LAFMSVDICV TTAIVFVSHL DRSLLDIRH FNIFDSVLDL WAACLYRSCL
LLGATIGVAK NSALGPRRLR ASWLVITLVC LFGIYAMVK LLLFSEVRRP IRDPFWWALF
VWTYISLGAS FLLWLLSTV RPGTQALEPG AATEAEGFPG SGRPPPEQAS GATLQKLLSY
TKPDVAFLVA ASFFLIVAAL GETFLPYTG RAIDGVIQK SMDQFSTAVV IVCLLAIGSS
FAAGIRGGIF TLIFARLNIR LRNCLFRSLV SQETSFFDEN RTGDLISRLT SDTTMVSDLV
SQNINVFLRN TVKVTGVVVF MFSLSWQLSL VTFMGFPIM MVSNIYGKYY KRLSKEVQNA
LARASNTAEE TISAMKTVRS FANEEEEAEV YLRKLQQVYK LNRKEAAAYM YYVWGSGLTL
LVVQVSILYY GGHLVISGQM TSGNLI AFII YEFVLGDCME SVGSVYSGLM QGVGAAEKVF
EFIDRQPTMV HDGSLAPDHL EGRVDFENVT FTYRTRPHTQ VLQNVSFSL PGKVTALVGP
SGSGKSSCVN ILENFYPLEG GRVLLDGKPI SAYDHKYLHR VISLVSQEPV LFARSITDNI
SYGLPTVPFE MVVEAAQKAN AHGFIMELQD GYSTETGEKG AQLSGGQKQR VAMARALVRN
PPVLILDEAT SALDAESEYL IQQAIHGNLQ KHTVLI AHR LSTVEHAHLI VVLDKGRVVQ

QGTHTQLLAQ GGLYAKLVQR QMLGLQPAAD FTAGHNEPVA NGSHKA

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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 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.

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 - 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 in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System

Product Details

(ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.
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.

Purity: >80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Endotoxin Level: Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Grade: Crystallography grade

Target Details

Target: ABCB9

Alternative Name: ABCB9 ([ABCB9 Products](#))

Background: ABC-type oligopeptide transporter ABCB9 (EC 7.4.2.6) (ATP-binding cassette sub-family B member 9) (ATP-binding cassette transporter 9) (ABC transporter 9 protein) (hABCB9) (TAP-like protein) (TAPL),FUNCTION: ATP-dependent low-affinity peptide transporter which translocates a broad spectrum of peptides from the cytosol to the lysosomal lumen for degradation (PubMed:15863492, PubMed:17977821, PubMed:18434309, PubMed:22641697, PubMed:25646430, PubMed:30877195, PubMed:31417173, PubMed:30353140). Displays a broad peptide length specificity from 6-mer up to at least 59-mer peptides with an optimum of 23-mers (PubMed:15863492, PubMed:25646430). Binds and transports smaller and larger peptides with the same affinity (PubMed:31417173). Favors positively charged, aromatic or hydrophobic residues in the N- and C-terminal positions whereas negatively charged residues as well as asparagine and methionine are not favored (PubMed:15863492, PubMed:17977821, PubMed:18434309). {ECO:0000269|PubMed:15863492, ECO:0000269|PubMed:17977821, ECO:0000269|PubMed:18434309, ECO:0000269|PubMed:22641697, ECO:0000269|PubMed:25646430, ECO:0000269|PubMed:30353140, ECO:0000269|PubMed:30877195, ECO:0000269|PubMed:31417173}.

Molecular Weight: 84.5 kDa

UniProt: [Q9NP78](#)

Pathways: [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#)

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. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process