Datasheet for ABIN3134905

ATP8B1 Protein (AA 1-1251) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	ATP8B1
Protein Characteristics:	AA 1-1251
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ATP8B1 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MSTERDSETT FDEESQPNDE VVPYSDDETE DELEDQGSTV EPEQNRVNRE AEKKRETFRK DCTWQVKAND RKFHEQPHFM NTKFFCIKES KYASNAIKTY KYNGFTFLPM NLFEQFKRAA NFYFLILLIL QAIPQISTLA WYTTLVPLLL VLGITAIKDL VDDVARHKMD KEINNRTCEV IKDGRFKIIK WKDIQVGDVI RLKKNDFIPA DILLLSSSEP NSLCYVETAE LDGETNLKFK MALEITDQYL QIEDNLATFD GFIECEEPNN RLDKFTGTLF WKNQSFPLDA DKILLRGCVI RNTDVCHGLV IFAGADTKIM KNSGKTRFKR TKIDYLMNYM VYTIFIVLIL VSAGLAIGHA YWEAQVGNYS WYLYDGENAT PSYRGFLNFW GYIIVLNTMV PISLYVSVEV IRLGQSHFIN WDLQMYYAEK DTPAKARTTT LNEQLGQIHY IFSDKTGTLT QNIMTFKKCC INGTIYGDHR DASQHSHSKI ELVDFSWNTF ADGKLAFYDH YLIEQIQSGK EPEVRQFFFL LSICHTVMVD RIDGQINYQA ASPDEGALVN AARNFGFAFL ARTQNTITVS ELGSERTYNV LAILDFNSDR KRMSIIVRTP EGSIRLYCKG ADTVIYERLH RMNPTKQETQ DALDIFASET LRTLCLCYKE IEEKEFTEWN

NKFMAASVAS SNRDEALDKV YEEIEKDLIL LGATAIEDKL QDGVPETISK LAKADIKIWV LTGDKKETAE NIGFACELLT EDTTICYGED INSLLHTRME NQRNRGGVSA KFAPPVYEPF FPPGENRALI ITGSWLNEIL LEKKTKRSKI LKLKFPRTEE ERRMRSQSRR RLEEKKEQRQ KNFVDLACEC SAVICCRVTP KQKAMVVDLV KRYKKAITLA IGDGANDVNM IKTAHIGVGI SGQEGMQAVM SSDYSFAQFR YLQRLLLVHG RWSYIRMCKF LRYFFYKNFA FTLVHFWYSF FNGYSAQTAY EDWFITLYNV LYSSLPVLLM GLLDQDVSDK LSLRFPGLYV VGQRDLLFNY KRFFVSLLHG VLTSMVLFFI PLGAYLQTVG QDGEAPSDYQ SFAVTVASAL VITVNFQIGL DTSYWTFVNA FSIFGSIALY FGIMFDFHSA GIHVLFPSAF QFTGTASNAL RQPYIWLTII LTVAVCLLPV VAIRFLSMTI WPSESDKIQK HRKRLKAEEQ WKRRQSVFRR GVSSRRSAYA FSHQRGYADL ISSGRSIRKK RSPLDAIIAD GTAEYRRTVE S

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

Product Details

	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:	ATP8B1
Alternative Name:	Atp8b1 (ATP8B1 Products)
Background:	Phospholipid-transporting ATPase IC (EC 7.6.2.1) (ATPase class I type 8B member 1) (P4-ATPase flippase complex alpha subunit ATP8B1),FUNCTION: Catalytic component of a P4-ATPase flippase complex which catalyzes the hydrolysis of ATP coupled to the transport of phospholipids, in particular phosphatidylcholines (PC), from the outer to the inner leaflet of the plasma membrane (By similarity). May participate in the establishment of the canalicular membrane integrity by ensuring asymmetric distribution of phospholipids in the canicular membrane (PubMed:21820390). Thus may have a role in the regulation of bile acids transport into the canaliculus, uptake of bile acids from intestinal contents into intestinal mucosa or both and protect hepatocytes from bile salts (PubMed:14976163, PubMed:21820390, PubMed:20126555). Involved in the microvillus formation in polarized epithelial cells, the function seems to be independent from its flippase activity (By similarity). Participates in correct apical membrane localization of CDC42, CFTR and SLC10A2 (PubMed:26416959). Enables CDC42 clustering at the apical membrane during enterocyte polarization through the interaction between CDC42 polybasic region and negatively charged membrane lipids provided by ATP8B1 (PubMed:26416959). Together with TMEM30A is involved in uptake of the synthetic drug alkylphospholipid perifosine (By similarity). Required for the preservation of cochlear hair cells in the inner ear (PubMed:19478059). According PubMed:20852622 is proposed to act as cardiolipin transporter during inflammatory injury, the function is questioned by PubMed:21475228 (PubMed:20852622, PubMed:21475228). {ECO:0000250|UniProtKB:O43520, ECO:0000269|PubMed:14976163, ECO:0000269|PubMed:19478059,

Target Details

	ECO:0000269|PubMed:20126555, ECO:0000269|PubMed:20852622, ECO:0000269|PubMed:21475228, ECO:0000269|PubMed:21820390, ECO:0000269|PubMed:26416959}.
Molecular Weight:	143.8 kDa
UniProt:	Q148W0

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 Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months