Datasheet for ABIN3114230

ATP2C1 Protein (AA 1-919) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	ATP2C1
Protein Characteristics:	AA 1-919
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ATP2C1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Brand:	AliCE®
Sequence:	MKVARFQKIP NGENETMIPV LTSKKASELP VSEVASILQA DLQNGLNKCE VSHRRAFHGW NEFDISEDEP LWKKYISQFK NPLIMLLLAS AVISVLMHQF DDAVSITVAI LIVVTVAFVQ EYRSEKSLEE LSKLVPPECH CVREGKLEHT LARDLVPGDT VCLSVGDRVP ADLRLFEAVD LSIDESSLTG ETTPCSKVTA PQPAATNGDL ASRSNIAFMG TLVRCGKAKG VVIGTGENSE FGEVFKMMQA EEAPKTPLQK SMDLLGKQLS FYSFGIIGII MLVGWLLGKD ILEMFTISVS LAVAAIPEGL PIVVTVTLAL GVMRMVKKRA IVKKLPIVET LGCCNVICSD KTGTLTKNEM TVTHIFTSDG LHAEVTGVGY NQFGEVIVDG DVVHGFYNPA VSRIVEAGCV CNDAVIRNNT LMGKPTEGAL IALAMKMGLD GLQQDYIRKA EYPFSSEQKW MAVKCVHRTQ QDRPEICFMK GAYEQVIKYC TTYQSKGQTL TLTQQQRDVY QQEKARMGSA GLRVLALASG PELGQLTFLG LVGIIDPPRT GVKEAVTTLI ASGVSIKMIT GDSQETAVAI ASRLGLYSKT SQSVSGEEID AMDVQQLSQI VPKVAVFYRA SPRHKMKIIK SLQKNGSVVA MTGDGVNDAV ALKAADIGVA

MGQTGTDVCK EAADMILVDD DFQTIMSAIE EGKGIYNNIK NFVRFQLSTS IAALTLISLA TLMNFPNPLN AMQILWINII MDGPPAQSLG VEPVDKDVIR KPPRNWKDSI LTKNLILKIL VSSIIIVCGT LFVFWRELRD NVITPRDTTM TFTCFVFFDM FNALSSRSQT KSVFEIGLCS NRMFCYAVLG SIMGQLLVIY FPPLQKVFQT ESLSILDLLF LLGLTSSVCI VAEIIKKVER SREKIQKHVS STSSSFLEV

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!

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.

Product Details

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:	ATP2C1
Alternative Name:	ATP2C1 (ATP2C1 Products)
Background:	Calcium-transporting ATPase type 2C member 1 (ATPase 2C1) (EC 7.2.2.10) (ATP-dependent Ca(2+) pump PMR1) (Ca(2+)/Mn(2+)-ATPase 2C1) (Secretory pathway Ca(2+)-transporting ATPase type 1) (SPCA1),FUNCTION: ATP-driven pump that supplies the Golgi apparatus with Ca(2+) and Mn(2+) ions, both essential cofactors for processing and trafficking of newly synthesized proteins in the secretory pathway (PubMed:16192278, PubMed:30923126, PubMed:21187401, PubMed:12707275, PubMed:20439740). Within a catalytic cycle, acquires Ca(2+) or Mn(2+) ions on the cytoplasmic side of the membrane and delivers them to the lumenal side. The transfer of ions across the membrane is coupled to ATP hydrolysis and is associated with a transient phosphorylation that shifts the pump conformation from inward-facing to outward-facing state (PubMed:16192278, PubMed:16332677, PubMed:30923126). Plays a primary role in the maintenance of Ca(2+) homeostasis in the trans-Golgi compartment with a functional impact on Golgi and post-Golgi protein sorting as well as a structural impact on cisternae morphology (PubMed:20439740, PubMed:14632183). Responsible for loading the Golgi stores with Ca(2+) ions in keratinocytes, contributing to keratinocyte differentiation and epidermis integrity (PubMed:14632183, PubMed:10615129, PubMed:20439740). Participates in Ca(2+) and Mn(2+) ions uptake into the Golgi store of hippocampal neurons and regulates protein trafficking required for neural polarity (By similarity). May also play a role in the maintenance of Ca(2+) and Mn(2+) homeostasis and signaling in the cytosol while preventing cytotoxicity (PubMed:21187401). {ECO:0000250|UniProtKB:Q80XR2, ECO:0000269|PubMed:10615129, ECO:0000269|PubMed:12707275, ECO:0000269|PubMed:14632183, ECO:0000269|PubMed:16192278, ECO:0000269|PubMed:16332677, ECO:0000269|PubMed:20439740, ECO:0000269|PubMed:21187401, ECO:0000269|PubMed:30923126}.
Molecular Weight:	100.6 kDa

Target Details

UniProt:	P98194
Pathways:	Transition Metal Ion Homeostasis, Ribonucleoside Biosynthetic 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. 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