Datasheet for ABIN3111888

ATP1B1 Protein (AA 1-303) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	ATP1B1
Protein Characteristics:	AA 1-303
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ATP1B1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Brand:	AliCE®
Sequence:	MARGKAKEEG SWKKFIWNSE KKEFLGRTGG SWFKILLFYV IFYGCLAGIF IGTIQVMLLT ISEFKPTYQD RVAPPGLTQI PQIQKTEISF RPNDPKSYEA YVLNIVRFLE KYKDSAQRDD MIFEDCGDVP SEPKERGDFN HERGERKVCR FKLEWLGNCS GLNDETYGYK EGKPCIIIKL NRVLGFKPKP PKNESLETYP VMKYNPNVLP VQCTGKRDED KDKVGNVEYF GLGNSPGFPL QYYPYYGKLL QPKYLQPLLA VQFTNLTMDT EIRIECKAYG ENIGYSEKDR FQGRFDVKIE VKS **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.

Product Details

- 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.

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:	ATP1B1
Alternative Name:	ATP1B1 (ATP1B1 Products)

Target Details

Background:	Sodium/potassium-transporting ATPase subunit beta-1 (Sodium/potassium-dependent ATPase subunit beta-1),FUNCTION: This is the non-catalytic component of the active enzyme, which catalyzes the hydrolysis of ATP coupled with the exchange of Na(+) and K(+) ions across the plasma membrane. The beta subunit regulates, through assembly of alpha/beta heterodimers, the number of sodium pumps transported to the plasma membrane (PubMed:19694409). Plays a role in innate immunity by enhancing virus-triggered induction of interferons (IFNs) and interferon stimulated genes (ISGs). Mechanistically, enhances the ubiquitination of TRAF3 and TRAF6 as well as the phosphorylation of TAK1 and TBK1 (PubMed:34011520). {ECO:0000269|PubMed:19694409, ECO:0000269|PubMed:34011520}., FUNCTION: Involved in cell adhesion and establishing epithelial cell polarity. {ECO:0000269|PubMed:19694409}.
Molecular Weight:	35.1 kDa
UniProt:	P05026
Pathways:	Thyroid Hormone Synthesis, Ribonucleoside Biosynthetic Process, SARS-CoV-2 Protein Interactome

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