Datasheet for ABIN3096293

ATP6V0A1 Protein (AA 1-837) (Strep Tag)

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Overview

Quantity:	0.5 mg
Target:	ATP6V0A1
Protein Characteristics:	AA 1-837
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ATP6V0A1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MGELFRSEEM TLAQLFLQSE AAYCCVSELG ELGKVQFRDL NPDVNVFQRK FVNEVRRCEE MDRKLRFVEK EIRKANIPIM DTGENPEVPF PRDMIDLEAN FEKIENELKE INTNQEALKR NFLELTELKF ILRKTQQFFD EMADPDLLEE SSSLLEPSEM GRGTPLRLGF VAGVINRERI PTFERMLWRV CRGNVFLRQA EIENPLEDPV TGDYVHKSVF IIFFQGDQLK NRVKKICEGF RASLYPCPET PQERKEMASG VNTRIDDLQM VLNQTEDHRQ RVLQAAAKNI RVWFIKVRKM KAIYHTLNLC NIDVTQKCLI AEVWCPVTDL DSIQFALRRG TEHSGSTVPS ILNRMQTNQT PPTYNKTNKF TYGFQNIVDA YGIGTYREIN PAPYTIITFP FLFAVMFGDF GHGILMTLFA VWMVLRESRI LSQKNENEMF STVFSGRYII LLMGVFSMYT GLIYNDCFSK SLNIFGSSWS VRPMFTYNWT EETLRGNPVL QLNPALPGVF GGPYPFGIDP IWNIATNKLT FLNSFKMKMS VILGIIHMLF GVSLSLFNHI YFKKPLNIYF GFIPEIIFMT SLFGYLVILI FYKWTAYDAH TSENAPSLLI HFINMFLFSY PESGYSMLYS GQKGIQCFLV VVALLCVPWM LLFKPLVLRR QYLRRKHLGT LNFGGIRVGN GPTEEDAEII QHDQLSTHSE DADEPSEDEV FDFGDTMVHQ AIHTIEYCLG

CISNTASYLR LWALSLAHAQ LSEVLWTMVI HIGLSVKSLA GGLVLFFFFT AFATLTVAIL LIMEGLSAFL HALRLHWVEF QNKFYSGTGF KFLPFSFEHI REGKFEE

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.

Product Details

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (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)

Target Details

Target:	ATP6V0A1
Alternative Name:	ATP6V0A1 (ATP6V0A1 Products)
Background:	V-type proton ATPase 116 kDa subunit a 1 (V-ATPase 116 kDa subunit a 1) (Clathrin-coated vesicle/synaptic vesicle proton pump 116 kDa subunit) (Vacuolar adenosine triphosphatase subunit Ac116) (Vacuolar proton pump subunit 1) (Vacuolar proton translocating ATPase 116 kDa subunit a isoform 1),FUNCTION: Subunit of the V0 complex of vacuolar(H+)-ATPase (V-ATPase), a multisubunit enzyme composed of a peripheral complex (V1) that hydrolyzes ATP and a membrane integral complex (V0) that transports protons across cellular membranes. V-ATPase is responsible for the acidification of various organelles, such as lysosomes, endosomes, the trans-Golgi network, and secretory granules, including synaptic vesicles (PubMed:33065002, PubMed:34909687, PubMed:33833240). In certain cell types, can be exported to the plasma membrane, where it is involved in the acidification of the extracellular environment (By similarity). Required for assembly and activity of the vacuolar ATPase (By similarity). Through its action on compartment acidification, plays an essential role in neuronal development in terms of integrity and connectivity of neurons (PubMed:33833240). {ECO:0000250|UniProtKB:P32563, ECO:0000250|UniProtKB:Q29466, ECO:0000269|PubMed:33065002, ECO:0000269|PubMed:33833240, ECO:0000269|PubMed:34909687}.
Molecular Weight:	96.4 kDa
UniProt:	Q93050
Pathways:	Transition Metal Ion Homeostasis, Proton Transport

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)