Datasheet for ABIN3137426

ATP2B2 Protein (AA 1-1198) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	ATP2B2
Protein Characteristics:	AA 1-1198
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ATP2B2 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence:	MGDMTNSDFY SKNQRNESSH GGEFGCTMEE LRSLMELRGT EAVVKIKETY GDTEAICRRL KTSPVEGLPG TAPDLEKRKQ IFGQNFIPPK KPKTFLQLVW EALQDVTLII LEIAAIISLG LSFYHPPGES NEGCATAQGG AEDEGEAEAG WIEGAAILLS VICVVLVTAF NDWSKEKQFR GLQSRIEQEQ KFTVVRAGQV VQIPVAEIVV GDIAQIKYGD LLPADGLFIQ GNDLKIDESS LTGESDQVRK SVDKDPMLLS GTHVMEGSGR MVVTAVGVNS QTGIIFTLLG AGGEEEEKKD KKAKQQDGAA AMEMQPLKSA EGGDADDKKK ANMHKKEKSV LQGKLTKLAV QIGKAGLVMS AITVIILVLY FTVDTFVVNK KPWLTECTPV YVQYFVKFFI IGVTVLVVAV PEGLPLAVTI SLAYSVKKMM KDNNLVRHLD ACETMGNATA ICSDKTGTLT TNRMTVVQAY VGDVHYKEIP DPSSINAKTL ELLVNAIAIN SAYTTKILPP EKEGALPRQV GNKTECGLLG FVLDLRQDYE PVRSQMPEEK LYKVYTFNSV RKSMSTVIKM PDESFRMYSK GASEIVLKKC CKILSGAGEA RVFRPRDRDE MVKKVIEPMA CDGLRTICVA YRDFPSSPEP DWDNENDILN ELTCICVVGI EDPVRPEVPE AIRKCQRAGI TVRMVTGDNI NTARAIAIKC GIIHPGEDFL CLEGKEFNRR

IRNEKGEIEQ ERIDKIWPKL RVLARSSPTD KHTLVKGIID STHTEQRQVV AVTGDGTNDG PALKKADVGF AMGIAGTDVA KEASDIILTD DNFSSIVKAV MWGRNVYDSI SKFLQFQLTV NVVAVIVAFT GACITQDSPL KAVQMLWVNL IMDTFASLAL ATEPPTETLL LRKPYGRNKP LISRTMMKNI LGHAVYQLTL IFTLLFVGEK MFQIDSGRNA PLHSPPSEHY TIIFNTFVMM QLFNEINARK IHGERNVFDG IFRNPIFCTI VLGTFAIQIV IVQFGGKPFS CSPLQLDQWM WCIFIGLGEL VWGQVIATIP TSRLKFLKEA GRLTQKEEIP EEELNEDVEE IDHAERELRR GQILWFRGLN RIQTQIRVVK AFRSSLYEGL EKPESRTSIH NFMAHPEFRI EDSQPHIPLI DDTDLEEDAA LKQNSSPPSS LNKNNSAIDS GINLTTDTSK SATSSSPGSP IHSLETSL

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!

Product Details

	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 (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:	ATP2B2
Alternative Name:	Atp2b2 (ATP2B2 Products)
Background:	Plasma membrane calcium-transporting ATPase 2 (PMCA2) (EC 7.2.2.10) (Plasma membrane calcium ATPase isoform 2) (Plasma membrane calcium pump isoform 2),FUNCTION: ATP-driven Ca(2+) ion pump involved in the maintenance of basal intracellular Ca(2+) levels in specialized cells of cerebellar circuit and vestibular and cochlear systems (PubMed:17234811, PubMed:9668038). Uses ATP as an energy source to transport cytosolic Ca(2+) ions across the plasma membrane to the extracellular compartment. Has fast activation and Ca(2+) clearance rate suited to control fast neuronal Ca(2+) dynamics (PubMed:17409239, PubMed:20083513). At parallel fiber to Purkinje neuron synapse, mediates presynaptic Ca(2+) efflux in response to climbing fiber-induced Ca(2+) rise. Provides for fast return of Ca(2+) concentrations back to their resting levels, ultimately contributing to long-term depression induction and motor learning (PubMed:17409239, PubMed:20083513). Plays an essential role in hearing and balance. In cochlear hair cells, shuttles Ca(2+) ions from stereocilia to the endolymph and dissipates Ca(2+) transients generated by the opening of the mechanoelectrical transduction channels. Regulates Ca(2+) levels in the vestibular system, where it contributes to the formation of otoconia (PubMed:9668038) (By similarity). Regulates Ca(2+) signaling through dissipation of

Target Details

	Ca(2+) transients generated by store-operated channels (By similarity). In lactating mammary gland, allows for the high content of Ca(2+) ions in the milk (PubMed:15302868). {ECO:0000250|UniProtKB:Q01814, ECO:0000269|PubMed:15302868, ECO:0000269|PubMed:17234811, ECO:0000269|PubMed:17409239, ECO:0000269|PubMed:20083513, ECO:0000269|PubMed:9668038}.
Molecular Weight:	132.6 kDa
UniProt:	Q9R0K7
Pathways:	Sensory Perception of Sound, Regulation of Cell Size, 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. 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.

Handling

Expiry Date:	Unlimited (if stored properly)

