Datasheet for ABIN3114272

ATP2B2 Protein (AA 1-1243) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	ATP2B2
Protein Characteristics:	AA 1-1243
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ATP2B2 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Brand:	AliCE®
Sequence:	MGDMTNSDFY SKNQRNESSH GGEFGCTMEE LRSLMELRGT EAVVKIKETY GDTEAICRRL KTSPVEGLPG TAPDLEKRKQ IFGQNFIPPK KPKTFLQLVW EALQDVTLII LEIAAIISLG LSFYHPPGEG NEGCATAQGG AEDEGEAEAG WIEGAAILLS VICVVLVTAF NDWSKEKQFR GLQSRIEQEQ KFTVVRAGQV VQIPVAEIVV GDIAQVKYGD LLPADGLFIQ GNDLKIDESS LTGESDQVRK SVDKDPMLLS GTHVMEGSGR MLVTAVGVNS QTGIIFTLLG AGGEEEEKKD KKGVKKGDGL QLPAADGAAA SNAADSANAS LVNGKMQDGN VDASQSKAKQ QDGAAAMEMQ PLKSAEGGDA DDRKKASMHK KEKSVLQGKL TKLAVQIGKA GLVMSAITVI ILVLYFTVDT FVVNKKPWLP ECTPVYVQYF VKFFIIGVTV LVVAVPEGLP LAVTISLAYS VKKMMKDNNL VRHLDACETM GNATAICSDK TGTLTTNRMT VVQAYVGDVH YKEIPDPSSI NTKTMELLIN AIAINSAYTT KILPPEKEGA LPRQVGNKTE CGLLGFVLDL KQDYEPVRSQ MPEEKLYKVY TFNSVRKSMS TVIKLPDESF RMYSKGASEI VLKKCCKILN GAGEPRVFRP RDRDEMVKKV

IEPMACDGLR TICVAYRDFP SSPEPDWDNE NDILNELTCI CVVGIEDPVR PEVPEAIRKC QRAGITVRMV TGDNINTARA IAIKCGIIHP GEDFLCLEGK EFNRRIRNEK GEIEQERIDK IWPKLRVLAR SSPTDKHTLV KGIIDSTHTE QRQVVAVTGD GTNDGPALKK ADVGFAMGIA GTDVAKEASD IILTDDNFSS IVKAVMWGRN VYDSISKFLQ FQLTVNVVAV IVAFTGACIT QDSPLKAVQM LWVNLIMDTF ASLALATEPP TETLLLRKPY GRNKPLISRT MMKNILGHAV YQLALIFTLL FVGEKMFQID SGRNAPLHSP PSEHYTIIFN TFVMMQLFNE INARKIHGER NVFDGIFRNP IFCTIVLGTF AIQIVIVQFG GKPFSCSPLQ LDQWMWCIFI GLGELVWGQV IATIPTSRLK FLKEAGRLTQ KEEIPEEELN EDVEEIDHAE RELRRGQILW FRGLNRIQTQ IRVVKAFRSS LYEGLEKPES RTSIHNFMAH PEFRIEDSQP HIPLIDDTDL EEDAALKQNS SPPSSLNKNN SAIDSGINLT TDTSKSATSS SPGSPIHSLE TSL

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:	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:15829536). Uses ATP as an energy source to transport cytosolic Ca(2+) ions across the plasma membrane to the extracellular compartment (PubMed:17234811, PubMed:15829536). Has fast activation and Ca(2+) clearance rate suited to control fast neuronal Ca(2+) dynamics. 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 (By similarity). Plays an essential role in hearing and balance (PubMed:17234811, PubMed:15829536). 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:17234811, PubMed:15829536). In non-excitable cells, regulates Ca(2+) signaling through spatial control of Ca(2+) ions extrusion and dissipation of Ca(2+) transients generated by store-operated channels (PubMed:25690014). In lactating mammary gland, allows for the high content of Ca(2+) ions in the milk (By similarity). {ECO:0000250|UniProtKB:Q9R0K7, ECO:0000269|PubMed:15829536, ECO:0000269|PubMed:17234811, ECO:0000269|PubMed:25690014}.

Target Details

Molecular Weight:	136.9 kDa
UniProt:	Q01814
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. 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