Datasheet for ABIN3112889

ATP1A3 Protein (AA 1-1013) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	ATP1A3
Protein Characteristics:	AA 1-1013
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ATP1A3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MGDKKDDKDS PKKNKGKERR DLDDLKKEVA MTEHKMSVEE VCRKYNTDCV QGLTHSKAQE ILARDGPNAL TPPPTTPEWV KFCRQLFGGF SILLWIGAIL CFLAYGIQAG TEDDPSGDNL YLGIVLAAVV IITGCFSYYQ EAKSSKIMES FKNMVPQQAL VIREGEKMQV NAEEVVVGDL VEIKGGDRVP ADLRIISAHG CKVDNSSLTG ESEPQTRSPD CTHDNPLETR NITFFSTNCV EGTARGVVVA TGDRTVMGRI ATLASGLEVG KTPIAIEIEH FIQLITGVAV FLGVSFFILS LILGYTWLEA VIFLIGIIVA NVPEGLLATV TVCLTLTAKR MARKNCLVKN LEAVETLGST STICSDKTGT LTQNRMTVAH MWFDNQIHEA DTTEDQSGTS FDKSSHTWVA LSHIAGLCNR AVFKGGQDNI PVLKRDVAGD ASESALLKCI ELSSGSVKLM RERNKKVAEI PFNSTNKYQL SIHETEDPND NRYLLVMKGA PERILDRCST ILLQGKEQPL DEEMKEAFQN AYLELGGLGE RVLGFCHYYL PEEQFPKGFA FDCDDVNFTT DNLCFVGLMS MIDPPRAAVP DAVGKCRSAG IKVIMVTGDH PITAKAIAKG VGIISEGNET VEDIAARLNI PVSQVNPRDA KACVIHGTDL

KDFTSEQIDE ILQNHTEIVF ARTSPQQKLI IVEGCQRQGA IVAVTGDGVN DSPALKKADI GVAMGIAGSD VSKQAADMIL LDDNFASIVT GVEEGRLIFD NLKKSIAYTL TSNIPEITPF LLFIMANIPL PLGTITILCI DLGTDMVPAI SLAYEAAESD IMKRQPRNPR TDKLVNERLI SMAYGQIGMI QALGGFFSYF VILAENGFLP GNLVGIRLNW DDRTVNDLED SYGQQWTYEQ RKVVEFTCHT AFFVSIVVVQ WADLIICKTR RNSVFQQGMK NKILIFGLFE ETALAAFLSY CPGMDVALRM YPLKPSWWFC AFPYSFLIFV YDEIRKLILR RNPGGWVEKE TYY

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.

Product Details

- 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:	ATP1A3
Alternative Name:	ATP1A3 (ATP1A3 Products)
Background:	Sodium/potassium-transporting ATPase subunit alpha-3 (Na(+)/K(+) ATPase alpha-3 subunit) (EC 7.2.2.13) (Na(+)/K(+) ATPase alpha(III) subunit) (Sodium pump subunit alpha-3),FUNCTION: This is the catalytic component of the active enzyme, which catalyzes the hydrolysis of ATP coupled with the exchange of sodium and potassium ions across the plasma membrane. This action creates the electrochemical gradient of sodium and potassium ions, providing the energy for active transport of various nutrients. {ECO:0000269|PubMed:33880529}.
Molecular Weight:	111.7 kDa
UniProt:	P13637
Pathways:	Thyroid Hormone Synthesis, Proton Transport, 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

Application Details

	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