Datasheet for ABIN3118379

ATP13A2 Protein (AA 1-1180) (Strep Tag)

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1 Image

Overview

Quantity:	1 mg
Target:	ATP13A2
Protein Characteristics:	AA 1-1180
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ATP13A2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MSADSSPLVG STPTGYGTLT IGTSIDPLSS SVSSVRLSGY CGSPWRVIGY HVVVWMMAGI PLLLFRWKPL WGVRLRLRPC NLAHAETLVI EIRDKEDSSW QLFTVQVQTE AIGEGSLEPS PQSQAEDGRS QAAVGAVPEG AWKDTAQLHK SEEAVSVGQK RVLRYYLFQG QRYIWIETQQ AFYQVSLLDH GRSCDDVHRS RHGLSLQDQM VRKAIYGPNV ISIPVKSYPQ LLVDEALNPY YGFQAFSIAL WLADHYYWYA LCIFLISSIS ICLSLYKTRK QSQTLRDMVK LSMRVCVCRP GGEEEWVDSS ELVPGDCLVL PQEGGLMPCD AALVAGECMV NESSLTGESI PVLKTALPEG LGPYCAETHR RHTLFCGTLI LQARAYVGPH VLAVVTRTGF CTAKGGLVSS ILHPRPINFK FYKHSMKFVA ALSVLALLGT IYSIFILYRN RVPLNEIVIR ALDLVTVVVP PALPAAMTVC TLYAQSRLRR QGIFCIHPLR INLGGKLQLV CFDKTGTLTE DGLDVMGVVP LKGQAFLPLV PEPRRLPVGP LLRALATCHA LSRLQDTPVG DPMDLKMVES TGWVLEEEPA ADSAFGTQVL AVMRPPLWEP QLQAMEEPPV PVSVLHRFPF SSALQRMSVV VAWPGATQPE AYVKGSPELV AGLCNPETVP TDFAQMLQSY TAAGYRVVAL ASKPLPTVPS LEAAQQLTRD TVEGDLSLLG

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LLVMRNLLKP QTTPVIQALR RTRIRAVMVT GDNLQTAVTV ARGCGMVAPQ EHLIIVHATH PERGQPASLE FLPMESPTAV NGVKDPDQAA SYTVEPDPRS RHLALSGPTF GIIVKHFPKL LPKVLVQGTV FARMAPEQKT ELVCELQKLQ YCVGMCGDGA NDCGALKAAD VGISLSQAEA SVVSPFTSSM ASIECVPMVI REGRCSLDTS FSVFKYMALY SLTQFISVLI LYTINTNLGD LQFLAIDLVI TTTVAVLMSR TGPALVLGRV RPPGALLSVP VLSSLLLQMV LVTGVQLGGY FLTLAQPWFV PLNRTVAAPD NLPNYENTVV FSLSSFQYLI LAAAVSKGAP FRRPLYTNVP FLVALALLSS VLVGLVLVPG LLQGPLALRN ITDTGFKLLL LGLVTLNFVG AFMLESVLDQ CLPACLRRLR PKRASKKRFK QLERELAEQP WPPLPAGPLR

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!

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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)
Grade:	Crystallography grade

Target Details

Target:	ATP13A2
Alternative Name:	ATP13A2 (ATP13A2 Products)
Background:	Polyamine-transporting ATPase 13A2 (EC 7.6.2.-),FUNCTION: ATPase which acts as a lysosomal polyamine exporter with high affinity for spermine (PubMed:31996848). Also stimulates cellular uptake of polyamines and protects against polyamine toxicity (PubMed:31996848). Plays a role in intracellular cation homeostasis and the maintenance of neuronal integrity (PubMed:22186024). Contributes to cellular zinc homeostasis (PubMed:24603074). Confers cellular protection against Mn(2+) and Zn(2+) toxicity and mitochondrial stress (PubMed:26134396). Required for proper lysosomal and mitochondrial maintenance (PubMed:22296644, PubMed:28137957). Regulates the autophagy-lysosome pathway through the control of SYT11 expression at both transcriptional and post-translational levels (PubMed:27278822). Facilitates recruitment of deacetylase HDAC6 to lysosomes to deacetylate CTTN, leading to actin polymerization, promotion of autophagosome-lysosome fusion and completion of autophagy (PubMed:30538141). Promotes secretion of exosomes as well as secretion of SCNA via exosomes (PubMed:25392495, PubMed:24603074). Plays a role in lipid homeostasis (PubMed:31132336). {ECO:0000269|PubMed:22186024,

Target Details

	ECO:0000269|PubMed:22296644, ECO:0000269|PubMed:24603074, ECO:0000269|PubMed:25392495, ECO:0000269|PubMed:26134396, ECO:0000269|PubMed:27278822, ECO:0000269|PubMed:28137957, ECO:0000269|PubMed:30538141, ECO:0000269|PubMed:31132336, ECO:0000269|PubMed:31996848}.
Molecular Weight:	128.8 kDa
UniProt:	Q9NQ11
Pathways:	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)

Images

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process

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