Datasheet for ABIN3094439

PAN3 Protein (AA 1-887) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	PAN3
Protein Characteristics:	AA 1-887
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PAN3 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MNSGGGLPPP SAAASPSSSS LAAAVAVVAP PGVGGVPGGA AVGVKLKYCR YYAKDKTCFY GEECQFLHED PAAGAAPGLG LHSNSVPLAL AGAPVAGFPP GAVAGGGAGP PPGPKKPDLG DPGTGAAAGG GGSSGGLDGP RLAIPGMDGG ALTDTSLTDS YFSTSFIGVN GFGSPVETKY PLMQRMTNSS SSPSLLNDSA KPYSAHDPLT SPASSLFNDF GALNISQRRK PRKYRLGMLE ERLVPMGSKA RKAKNPIGCL ADRCKSGVPI NMVWWNRVTE NNLQTPNPTA SEFIPKGGST SRLSNVSQSN MSAFSQVFSH PSMGSPATAG LAPGMSLSAG SSPLHSPKIT PHTSPAPRRR SHTPNPASYM VPSSASTSVN NPVSQTPSSG QVIQKETVGG TTYFYTDTTP APLTGMVFPN YHIYPPTAPH VAYMQPKANA PSFFMADELR QELINRHLIT MAQIDQADMP AVPTEVDSYH SLFPLEPLPP PNRIQKSSNF GYITSCYKAV NSKDDLPYCL RRIHGFRLVN TKCMVLVDMW KKIQHSNIVT LREVFTTKAF AEPSLVFAYD FHAGGETMMS RHFNDPNADA YFTKRKWGQH EGPLPRQHAG LLPESLIWAY IVQLSSALRT IHTAGLACRV MDPTKILITG KTRLRVNCVG

VFDVLTFDNS QNNNPLALMA QYQQADLISL GKVVLALACN SLAGIQRENL QKAMELVTIN YSSDLKNLIL YLLTDQNRMR SVNDIMPMIG ARFYTQLDAA QMRNDVIEED LAKEVQNGRL FRLLAKLGTI NERPEFQKDP TWSETGDRYL LKLFRDHLFH QVTEAGAPWI DLSHIISCLN KLDAGVPEKI SLISRDEKSV LVVTYSDLKR CFENTFQELI AAANGQL

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.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

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:	PAN3
Alternative Name:	PAN3 (PAN3 Products)
Background:	PAN2-PAN3 deadenylation complex subunit PAN3 (PAB1P-dependent poly(A)-specific ribonuclease) (Poly(A)-nuclease deadenylation complex subunit 3) (PAN deadenylation complex subunit 3),FUNCTION: Regulatory subunit of the poly(A)-nuclease (PAN) deadenylation complex, one of two cytoplasmic mRNA deadenylases involved in general and miRNA-mediated mRNA turnover. PAN specifically shortens poly(A) tails of RNA and the activity is stimulated by poly(A)-binding protein (PABP). PAN deadenylation is followed by rapid degradation of the shortened mRNA tails by the CCR4-NOT complex. Deadenylated mRNAs are then degraded by two alternative mechanisms, namely exosome-mediated 3'-5' exonucleolytic degradation, or deadenylation-dependent mRNA decapping and subsequent 5'-3' exonucleolytic degradation by XRN1. PAN3 acts as a regulator for PAN activity, recruiting the catalytic subunit PAN2 to mRNA via its interaction with RNA and PABP, and to miRNA targets via its interaction with GW182 family proteins. {ECO:0000255|HAMAP-Rule:MF_03181, ECO:0000269|PubMed:14583602, ECO:0000269|PubMed:23932717}., FUNCTION: [Isoform 1]: Decreases PAN2-mediated deadenylation, possibly by preventing progression into the second CCR4-NOT mediated stage of biphasic deadenylation. Has a significant effect on mRNA stability, generally stabilizing a subset of the transcriptome. Stabilizes mRNAs degraded by the AU-rich element (ARE)-mediated mRNA decay pathway but promotes degradation of mRNAs by the microRNA-mediated pathway (PubMed:28559491). Its activity influences mRNP remodeling, specifically reducing formation of a subset of P-bodies containing GW220, an isoform of TNRC6A (PubMed:28559491). {ECO:0000269|PubMed:28559491}., FUNCTION: [Isoform 3]: Enhances PAN2 deadenylase activity and has an extensive effect on mRNA stability, generally enhancing mRNA decay across the transcriptome by multiple pathways, including the AU-rich element (ARE)-mediated pathway, microRNA-mediated pathway and the nonsense-mediated pathway (NMD) (PubMed:28559491). Its activity is required for efficient P-body formation (PubMed:28559491). May be involved in regulating mRNAs of genes involved in cell cycle progression and cell proliferation (PubMed:28559491).

Target Details

	{ECO:0000269|PubMed:28559491}.
Molecular Weight:	95.6 kDa
UniProt:	Q58A45

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