Datasheet for ABIN3094347

PAN2 Protein (AA 1-1202) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	PAN2
Protein Characteristics:	AA 1-1202
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PAN2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MNFEGLDPGL AEYAPAMHSA LDPVLDAHLN PSLLQNVELD PEGVALEALP VQESVHIMEG VYSELHSVVA EVGVPVSVSH FDLHEEMLWV GSHGGHATSF FGPALERYSS FQVNGSDDIR QIQSLENGIL FLTKNNLKYM ARGGLIIFDY LLDENEDMHS LLLTDSSTLL VGGLQNHIIE IDLNTVQETQ KYAVETPGVT IMRQTNRFFF CGHTSGKVSL RDLRTFKVEH EFDAFSGSLS DFDVHGNLLA ACGFSSRLTG LACDRFLKVY DLRMMRAITP LQVHVDPAFL RFIPTYTSRL AIISQSGQCQ FCEPTGLANP ADIFHVNPVG PLLMTFDVSA SKQALAFGDS EGCVHLWTDS PEPSFNPYSR ETEFALPCLV DSLPPLDWSQ DLLPLSLIPV PLTTDTLLSD WPAANSAPAP RRAPPVDAEI LRTMKKVGFI GYAPNPRTRL RNQIPYRLKE SDSEFDSFSQ VTESPVGREE EPHLHMVSKK YRKVTIKYSK LGLEDFDFKH YNKTLFAGLE PHIPNAYCNC MIQVLYFLEP VRCLIQNHLC QKEFCLACEL GFLFHMLDLS RGDPCQGNNF LRAFRTIPEA SALGLILADS DEASGKGNLA RLIQRWNRFI LTQLHQDMQE LEIPQAYRGA GGSSFCSSGD SVIGQLFSCE MENCSLCRCG SETVRASSTL LFTLSYPDGS KSDKTGKNYD FAQVLKRSIC LDQNTQAWCD

TCEKYQPTIQ TRNIRHLPDI LVINCEVNSS KEADFWRMQA EVAFKMAVKK HGGEISKNKE FALADWKELG SPEGVLVCPS IEELKNVWLP FSIRMKMTKN KGLDVCNWTD GDEMQWGPAR AEEEHGVYVY DLMATVVHIL DSRTGGSLVA HIKVGETYHQ RKEGVTHQQW YLFNDFLIEP IDKHEAVQFD MNWKVPAILY YVKRNLNSRY NLNIKNPIEA SVLLAEASLA RKQRKTHTTF IPLMLNEMPQ IGDLVGLDAE FVTLNEEEAE LRSDGTKSTI KPSQMSVARI TCVRGQGPNE GIPFIDDYIS TQEQVVDYLT QYSGIKPGDL DAKISSKHLT TLKSTYLKLR FLIDIGVKFV GHGLQKDFRV INLMVPKDQV LDTVYLFHMP RKRMISLRFL AWYFLDLKIQ GETHDSIEDA RTALQLYRKY LELSKNGTEP ESFHKVLKGL YEKGRKMDWK VPEPEGQTSP KNAAVFSSVL AL

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)
Grade:	Crystallography grade

Target Details

Target:	PAN2
Alternative Name:	PAN2 (PAN2 Products)
Background:	PAN2-PAN3 deadenylation complex catalytic subunit PAN2 (EC 3.1.13.4) (Inactive ubiquitin carboxyl-terminal hydrolase 52) (PAB1P-dependent poly(A)-specific ribonuclease) (Poly(A)-nuclease deadenylation complex subunit 2) (PAN deadenylation complex subunit 2),FUNCTION: Catalytic 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 decaping and subsequent 5'-3' exonucleolytic degradation by XRN1. Also acts as an important regulator of the HIF1A-mediated hypoxic response. Required for HIF1A mRNA stability independent of poly(A) tail length regulation. {ECO:0000255|HAMAP-Rule:MF_03182, ECO:0000269|PubMed:14583602, ECO:0000269|PubMed:16284618, ECO:0000269|PubMed:23398456}.

Target Details

Molecular Weight:	135.4 kDa
UniProt:	Q504Q3

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.
Expiry Date:	Unlimited (if stored properly)

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

