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Datasheet for ABIN3088937

AKNA Protein (AA 1-1439) (Strep Tag)

Overview

Quantity:	1 mg
Target:	AKNA
Protein Characteristics:	AA 1-1439
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This AKNA protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MASSETEIRW AEPGLGKGPQ RRRWAWAEDK RDVDRSSSQS WEEERLFPNA TSPALLEDFR
LAQQHLPPLE WDPHPQPDGH QDSESGETSG EEAEAEDVDS PASSHEPLAW LPQQGRQLDM
TEEEDGTLG SLEVEEAGES SSRLGYEAGL SLEGHGNTSP MALGHGQARG WWASGEQASG
DKLSEHSEVN PSVELSPARS WSSGTVSLDH PSDSLDSTWE GETDGPQPTA LAETLPEGPS
HHLLSPDGRT GGSVARATPM EFQDSSAPPA QSPQHATDRW RRETTRFFCP QPKEHIWKQT
KTSKPLPSR FIGSISPLNP QRPTRQGRP LPRQGATLAG RSSSNAPKYG RGQLNYPLPD
FSKVGPRVRF PKDESYRPPK SRSHNRKPQA PARPLIFKSP AEIVQEVLLS SGEAALAKDT
PPAHPITRVP QEFQTPEQAT ELVHQLQEDY HRLLTKYAEA ENTIDQLRLG AKVNLFSDDP
QPNHSIHTGM VPQGTKVLSF TIPQPRSAEW WPGAEDPQA SAASGWPSAR GDLSPPSSLTS
MPTLGWLPEN RDISEDQSSA EQTQALASQA SQFLAKVESF ERLIQAGRLM PQDQVKGFQR
LKAAHAAL EE EYLKACREQH PAQPLAGSKG TPGRFDPRRE LEAEIYRLGS CLEELKEHID
QTQQEPEPPG SDSALDSTPA LPCLHQPTH L PAPSGQAPMP AIKTSCPEPA TTTAAASTGP

CPLHVNVEVS SGNSEVEDRP QDPLARLRHK ELQMEQVYHG LMERYLSVKS LPEAMRMEEE
EEGEEEEEEEE GGGDSLEVDG VAATPGKAEA TRVLPRQCPV QAEKSHGAPL EEATEKMVSM
KPPGFQASLA RDGHMSGLGK AEAAPPGPGV PPHPPGTKSA ASHQSSMTSL EGSGISERLP
QKPLHRGGGP HLEETWMASP ETDSGFVGSE TSRVSPLTQT PEHRLSHIST AGTLAQPFAA
SVPRDGASYP KARGSLIPRR ATEPSTPRSQ AQRYLSSPSG PLRQRAPNFS LERTLAAEMA
VPGSEFEGHK RISEQLPNK TISPPPAPAP AAAPLPCGPT ETIPSFLLTR AGRDQAICEL
QEEVSRLRLR LEDSLHQPLQ GSPTRPASAF DRPARTRGRP ADSPATWGSY YGSKSTERLP
GEPRGEEQIV PPGRQARSS SVPREVLRLS LSSESELPSL PLFSEKSKTT KDSPQAARDG
KRGVGSAGWP DRVTFRGQYT GHEYHVLSPK AVPKNGTVS CPHCRPIRTQ DAGGAVTGDP
LGPPPADTLQ CPLCGQVGSP PEADGPGSAT SGAEKATRRR KASSTSPKQ RSKQAGSSPR
PPPGLWYLAT APPAPAPP AF AYISSVPIMP YPPAAVYYAP AGPTSAQPAA KWPPTASPPP
ARRHRHSIQL DLGDLEELNK ALSRAVQAAE SVRSTTRQMR SSSLADLRQA HSLRGSCFL

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

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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 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)

Target Details

Target:

AKNA

Alternative Name:

AKNA ([AKNA Products](#))

Background:

Microtubule organization protein AKNA (AT-hook-containing transcription factor),FUNCTION: Centrosomal protein that plays a key role in cell delamination by regulating microtubule organization (By similarity). Required for the delamination and retention of neural stem cells from the subventricular zone during neurogenesis (By similarity). Also regulates the epithelial-to-mesenchymal transition in other epithelial cells (By similarity). Acts by increasing centrosomal microtubule nucleation and recruiting nucleation factors and minus-end stabilizers, thereby destabilizing microtubules at the adherens junctions and mediating constriction of the apical endfoot (By similarity). In addition, may also act as a transcription factor that specifically activates the expression of the CD40 receptor and its ligand CD40L/CD154, two cell surface molecules on lymphocytes that are critical for antigen-dependent-B-cell development (PubMed:11268217). Binds to A/T-rich promoters

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(PubMed:11268217). It is unclear how it can both act as a microtubule organizer and as a transcription factor, additional evidences are required to reconcile these two apparently contradictory functions (Probable). {ECO:0000250|UniProtKB:Q80VW7, ECO:0000269|PubMed:11268217, ECO:0000305}.

Molecular Weight: 155.1 kDa

UniProt: [Q7Z591](#)

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)