

Datasheet for ABIN3093425
KIF4A Protein (AA 1-1232) (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	KIF4A
Protein Characteristics:	AA 1-1232
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This KIF4A protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	<p>MKEEVKGIPV RVALRCRPLV PKEISEGCQM CLSFVPGEPQ VVVGTDKSFT YDFVFDPSTE QEEVNTAVA PLIKGVFKGY NATVLAYGQT GSGKTYSMGG AYTAEQENEP TVGVIPRVIQ LLFKEIDKKS DFEFTLKVSY LEIYNEEILD LLCPSREKAQ INIREDPKEG IKIVGLTEKT VLVALDTVSC LEQGNSRTV ASTAMNSQSS RSHAIFTISL EQRKKS DKNS SFRSKLHLVD LAGSERQKKT KAEGDRLKEG ININRGLLCL GNVISALGDD KKGGFVPYRD SKLTRLLQDS LGGNSHTLMI ACVSPADSNL EETLNTLYA DRARKIKNKP IVNIDPQTAE LNHLKQQVQQ LQVLLLQAHG GTLPGSITVE PSENLQSLME KNQSLVEENE KLSRGLSEAA GQTAQMLERI ILTEQANEKM NAKLEELRQH AACKLDLQKL VETLEDQELK ENVEIICNLQ QLITQLSDET VACMAAAIDT AVEQEAQVET SPETSRSSDA FTTQHALRQA QMSKELVELN KALALKEALA RKMTQNDSQL QPIQYQYQDN IKELELEVIN LQKEKEELVL ELQTAKKDAN QAKLSERRRK RLQLEGQIA DLKKKLNEQS KLLKLKESTE RTVSKLNQEI RMMKNQRVQL MRQMKEDA EK FRQWKQKKDK EVIQLKERDR KRQYELLKLE RNFQKQSNVL RRKTEEAAAA NKRLKDALQK QREVADKRKE</p>
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TQSRGMEGTA ARVKNWLGNE IEVMVSTEEA KRHLNDLLED RKILAQDVAQ LKEKKESGEN
PPPKLRRRTF SLTEVRGQVS ESEDSITKQI ESLETEMEFR SAQIADLQKQ LLDAEEDRP
KQRWENIATI LEAKCALKYL IGELVSSKIQ VSKLESSLKQ SKTSCADMQK MLFEERNHFA
EIETELQAEI VRMEQQHQEK VLYLLSQLQQ SQMAEKQLEE SVSEKEQQLL STLKCQDEEL
EKMREVCEQN QQLRENEII KQKLTLLQVA SRQKHLPKDT LLSPDSSFY VPPKPKPSRV
KEKFLEQSMI IEDLKYCSEH SVNEHEDGDG DDDEGDDEEW KPTKLVKVSRI KNIQGCSCCKG
WCGNKQCGCR KQKSDCGVDC CCDPTKCRNR QQGKDSLGTV ERTQDSEGSF KLEDPTVETP
GLSFFNPVCA TPNSKILKEM CDVEQVLSKK TPPAPSPFDL PELKHVATEY QENKAPGKKK
KRALASNTSF FSGCSPIEEE AH

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:

KIF4A

Alternative Name:

KIF4A ([KIF4A Products](#))

Background:

Chromosome-associated kinesin KIF4A (Chromokinesin-A),FUNCTION: Iron-sulfur (Fe-S) cluster binding motor protein that has a role in chromosome segregation during mitosis (PubMed:29848660). Translocates PRC1 to the plus ends of interdigitating spindle microtubules during the metaphase to anaphase transition, an essential step for the formation of an organized central spindle midzone and midbody and for successful cytokinesis (PubMed:15297875, PubMed:15625105). May play a role in mitotic chromosomal positioning and bipolar spindle stabilization (By similarity). {ECO:0000250|UniProtKB:P33174, ECO:0000269|PubMed:15297875, ECO:0000269|PubMed:15625105, ECO:0000269|PubMed:29848660}.

Molecular Weight:

139.9 kDa

UniProt:

[O95239](#)

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