

## Datasheet for ABIN3093423 KIF18A Protein (AA 1-898) (His tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	KIF18A
Protein Characteristics:	AA 1-898
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This KIF18A protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), Crystallization (Crys), ELISA

#### Product Details

Sequence:	<p>MSVTEEDLCH HMKVVVRVRP ENTKEKAAGF HKVVHVVDKH ILVFDPKQEE VSFFHGKKT</p> <p>NQNVIKKQNK DLKFVFDVAV DETSTQSEVF EHTTKPILRS FLNGYNCTVL AYGATGAGKT</p> <p>HTMLGSADEP GVMYLTMLHL YKCMDEIKKE KICSTAVSYL EVYNEQIRDL LVNSGPLAVR</p> <p>EDTQKGVVVH GLTLHQPQSS EEILHLLDNG NKNRTQHPTD MNATSSRSRSH VFQIYLRQQD</p> <p>KTASINQNVIR IAKMSLIDLA GSERASTSGA KGTRFVEGTN INRSLALGN VINALADSKR</p> <p>KNQHIPPYRNS KLTRLLKDSL GGNCQTIMIA AVSPSSVFYD DTYNLTLYAN RAKDIKSSLK</p> <p>SNVLNVNNHI TQYVKICNEQ KAEILLLKEK LKAYEEQKAF TNENDQAKLM ISNPQEKEIE</p> <p>RFQEILNCLF QNREEIRQEY LKLEMLLKEN ELKSFYQQQC HKQIEMMCSE DKVEKATGKR</p> <p>DHRLAMLKTR RSYLEKRREE ELKQFDENTN WLHRVEKEMG LLSQNGHIPK ELKCDLHCHH</p> <p>LHLQNKDLKA QIRHMDLAC LQEQQHRQTE AVLNALLPTL RKQYCTLKEA GLSNAAFESD</p> <p>FKEIEHLVER KKVWWADQT AEQPKQNDLP GISVLMTFPQ LGPVQPIPC SSSGGTNLVK</p> <p>IPTKRTRRK LMPSPKGGQH TLKSPPSQSV QLNDLSKEL QPIVYTPEDC RKAQNPSTV</p>
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TLMKPSSFTT SFQAISSNIN SDNCLKMLCE VAIPHNRRKE CGQEDLDSTF TICEDIKSSK  
CKLPEQESLP NDNKDILQRL DPSSFSTKHS MPVPSMVPSY MAMTTAAKRK RKLTSSTSNS  
SLTADVNSGF AKRVRQDNSS EKHLQENKPT MEHKNRICKI NPSMVRKFGR NISKGNLR

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human KIF18A Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

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### Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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.

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### Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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### Sterility:

0.22 µm filtered

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## Product Details

Endotoxin Level: Protein is endotoxin free.

Grade: Crystallography grade

## Target Details

Target: KIF18A

Alternative Name: KIF18A ([KIF18A Products](#))

Background: Microtubule-depolymerizing kinesin which plays a role in chromosome congression by reducing the amplitude of preanaphase oscillations and slowing poleward movement during anaphase, thus suppressing chromosome movements. May stabilize the CENPE-BUB1B complex at the kinetochores during early mitosis and maintains CENPE levels at kinetochores during chromosome congression. {ECO:0000269|PubMed:17346968, ECO:0000269|PubMed:18267093, ECO:0000269|PubMed:18513970, ECO:0000269|PubMed:19625775}.

Molecular Weight: 103.2 kDa Including tag.

UniProt: [Q8NI77](#)

## 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: In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

## Handling

Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

## Handling

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Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

## Images

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