

# Datasheet for ABIN3093380 KIF4B Protein (AA 1-1234) (Strep Tag)



### Overview

Quantity:	250 μg
Target:	KIF4B
Protein Characteristics:	AA 1-1234
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This KIF4B protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

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Product Details	
Brand:	AliCE®
Sequence:	MKEEVKGIPV RVALRCRPLV PKEISEGCQM CLSFVPGETQ VVVGTDKSFT YDFVFDPCTE
	QEEVFNKAVA PLIKGIFKGY NATVLAYGQT GSGKTYSMGG AYTAEQENEP TVGIIPRVIQ
	LLFKEIDKKS DFEFTLKVSY LEIYNEEILD LLCPSREKAQ INIREDPKEG IKIVGLTEKT VLVALDTVSC
	LEQGNNSRTV ASTAMNSQSS RSHAIFTISI EQRKKSDKNC SFRSKLHLVD LAGSERQKKT
	KAEGDRLKEG ININRGLLCL GNVISALGDD KKGSFVPYRD SKLTRLLQDS LGGNSHTLMI
	ACVSPADSNL EETLSTLRYA DRARKIKNKP IVNIDPHTAE LNHLKQQVQQ LQVLLLQAHG
	GTLPGSINAE PSENLQSLME KNQSLVEENE KLSRCLSKAA GQTAQMLERI ILTEQVNEKL
	NAKLEELRQH VACKLDLQKL VETLEDQELK ENVEIICNLQ QLITQLSDET VACTAAAIDT
	AVEEEAQVET SPETSRSSDA FTTQHALHQA QMSKEVVELN NALALKEALV RKMTQNDNQL
	QPIQFQYQDN IKNLELEVIN LQKEKEELVR ELQTAKKNVN QAKLSEHRHK LLQELEGQIA
	DLKKKLNEQS KLLKLKESTE RTVSKLNQEI WMMKNQRVQL MRQMKEDAEK FRQWKQKKDK

EVIQLKERDR KRQYELLKLE RNFQKQSSVL RRKTEEAAAA NKRLKDALQK QREVTDKRKE
TQSHGKEGIA ARVRNWLGNE IEVMVSTEEA KRHLNDLLED RKILAQDVVQ LKEKKESREN
PPPKLRKCTF SLSEVHGQVL ESEDCITKQI ESLETEMELR SAQIADLQQK LLDAESEDRP
KQCWENIATI LEAKCALKYL IGELVSSKIH VTKLENSLRQ SKASCADMQK MLFEEQNHFS
EIETELQAEL VRMEQQHQEK VLYLVSQLQE SQMAEKQLEK SASEKEQQLV STLQCQDEEL
EKMREVCEQN QQLLQENEII KQKLILLQVA SRQKHLPNDT LLSPDSSFEY IPPKPKPSRV
KEKFLEQSMD IEDLKYCSEH SVNEHEDGDG DGDSDEGDDE EWKPTKLVKV SRKNIQGCSC
KGWCGNKQCG CRKQKSDCGV DCSCDPTKCR NRQQGKDSLG TVEQTQDSEG SFKLEDPTEV
TPGLSFFNPV CATPNSKILK EMCDMEQVLS KKTAPAPSPF DLPESKHGAT EYQQNKPPGK
KKKRALASNT SFFSGCSPIE EEAH

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 posttranslational 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.

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:	KIF4B
Alternative Name:	KIF4B (KIF4B Products)
Background:	Chromosome-associated kinesin KIF4B (Chromokinesin-B),FUNCTION: Iron-sulfur (Fe-S) cluster binding motor protein that has a role in chromosome segregation during mitosis (By similarity). 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 (By similarity). May play a role in mitotic chromosomal positioning and bipolar spindle stabilization (By similarity). {ECO:0000250 UniProtKB:095239, ECO:0000250 UniProtKB:P33174}.
Molecular Weight:	140.0 kDa
UniProt:	Q2VIQ3

### **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.

# **Application Details**

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 <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months