

Datasheet for ABIN3093409
KIF7 Protein (AA 1-1343) (Strep Tag)[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	KIF7
Protein Characteristics:	AA 1-1343
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This KIF7 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MGLEAQLRPG AEEAPVRVAL RVRPLLPKEL LHGHQSCLQV EPGLGRVTLG RDRHFGFHVV LAEDAGQEAV YQACVQPLLE AFFEGFNATV FAYGQTGSGK TYTMGEASVA SLLEDEQGIV PRAMAEAFKL IDENDLLDCL VHSVSYLEVYK EEFRDILLEVG TASRDIQLRE DERGNVVLGC VKEVDVEGLD EVLSLLEMGN AARHTGATHL NHLSSRSHTV FVTLEQRGR APSRLPRPAP GQLLVSKFHF VDLAGSERVL KTGSTGERLK ESIQINSSLL ALGNVISALG DPQRRGSHIP YRDSKITRIL KDSLGGNAKT VMIACVSPSS SDFDETLNTL NYASRAQNIR NRATVNWPRPE AERPPEETAS GARGPPRHRS ETRIIHRGRR APGPATASAA AAMRLGAECA RYRACTDAAY SLLRELQAEP GLPGAAARKV RDWLCAVEGE RSALSSASGP DSGIESASVE DQAAQGAGGR KEDEGAQQLL TLQNQVARLE EENRDFLAAL EDAMEQYKLQ SDRLREQQEE MVELRLRLEL VRPGWGGPRL LNGLPPGSFV PRPHTAPLGG AHAHVLGMVP PACLPGDEVG SEQRGEQVTN GREAGAELLT EVNRLGSGSS AASEEEEEEE EPPRRTLHLR RNRISNCSQR AGARPGSLPE RKGPELCLEE LDAAIPGSRA VGGSKARVQA RQVPPATASE WRLAQAAQKI RELAINIRMK
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EELIGELVRT GKAAQALNRQ HSQRIRELEQ EAEQVRAELS EGQRQLRELE GKELQDAGER
SRLQEFRRRV AAAQSQVQVL KEKKQATERL VSLSAQSEKR LQELERNVQL MRQQQGQLQR
RLREETEQRK RLEAEMSKRQ HRVKELELKH EQQKILKIK TEEIAAFQRK RRSNGSVV
SLEQQQKIEE QKKWLDQEME KVLQQRRALE ELGEELHKRE AILAKKEALM QEKTGLESKR
LRSSQALNED IVRVSSRLEH LEKELSEKSG QLRQGSASQ QQIRGEIDSL RQEKDSSLKQ
RLEIDGKLRQ GSLLSPEER TLFQLDEAIE ALDAAIEYKN EAITCRQRL RASASLLSQC
EMNLMAKLSY LSSSETRALL CKYFDKVVTL REEQHQQQIA FSELEMQLEE QQRLVYWLEV
ALERQRLEMD RQLTLQQKEH EQNMQLLLQQ SRDHLGEGLA DSRQYEARI QALEKELGRY
MWINQELKQK LGGVNAVGHSG RGGEKRSLS EGRQAPGNED ELHLAPPELLW LSPLTEGAPR
TRETRDLVH APLPLTWKRS SLCGEEQGSP EELRQREAAE PLVGRVLPVG EAGLPWNFGP
LSKPRRELRR ASPGMIDVRK NPL

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

Product Details

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)
Grade:	Crystallography grade

Target Details

Target:	KIF7
Alternative Name:	KIF7 (KIF7 Products)
Background:	Kinesin-like protein KIF7,FUNCTION: Essential for hedgehog signaling regulation: acts both as a negative and positive regulator of sonic hedgehog (Shh) and Indian hedgehog (Ihh) pathways, acting downstream of SMO, through both SUFU-dependent and -independent mechanisms (PubMed:21633164). Involved in the regulation of microtubular dynamics. Required for proper organization of the ciliary tip and control of ciliary localization of SUFU-GLI2 complexes (By similarity). Required for localization of GLI3 to cilia in response to Shh. Negatively regulates Shh signaling by preventing inappropriate activation of the transcriptional activator GLI2 in the absence of ligand. Positively regulates Shh signaling by preventing the processing of the transcription factor GLI3 into its repressor form. In keratinocytes, promotes the dissociation of SUFU-GLI2 complexes, GLI2 nuclear translocation and Shh signaling activation (By similarity). Involved in the regulation of epidermal differentiation and chondrocyte development (By

Target Details

	similarity). {ECO:0000250 UniProtKB:B7ZNG0, ECO:0000269 PubMed:21633164}.
Molecular Weight:	150.6 kDa
UniProt:	Q2M1P5
Pathways:	Hedgehog Signaling

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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
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