

Datasheet for ABIN3093458

**KIF14 Protein (AA 1-1648) (Strep Tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	KIF14
Protein Characteristics:	AA 1-1648
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This KIF14 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

## Product Details

Sequence:	MSLHSTHNRN NSGDILDIPS SQNSSSLNAL THSSRLKLHL KSDMSECEND DPLLRSGKV RDINRTYVIS ASRKTADMPL TPNPVGRLAL QRRTRNKES SLLVSELEDT TEKTAETRLT LQRRAKTDSA EKWKTAIDS VKMTLNVGGE TENNGVSKES RTNVRIVNNA KNSFVASSVP LDEDPQVIEM MADKKYKETF SAPSRANENV ALKYSSNRPP IASLSQTEVV RSGHLTTKPT QSKLDIKVLG TGNLYHRSIG KEIAKTSNKF GSLEKRTPTK CTTEHKLTTK CSLPQLKSPA PSILKNRMSN LQVKQRPKSS FLANKQERSA ENTILPEEET VVQNTSAGKD PLKVENSQVT VAVRVRPFTK REKIEKASQV VFMSGKEITV EHPDTKQVYN FIYDVSFWSF DECHPHYASQ TTVYEKLAAP LLERAFEGFN TCLFAYGQTG SGKSYTMMGF SEEPGIIPRF CEDLFSQVAR KQTQEVSYHI EMSFFEYNE KIHDLVCKD ENGQRKQPLR VREHPVYGPY VEALSMNIVS SYADIQSWLE LGNKQRATAA TGMNDKSSRS HSVFTLVMTQ TKTEFVEGEE HDHRITSRIN LIDLAGSERC STAHTNGDRL KEGVSINKSL LTLGKVISAL SEQANQRSVF IPYRESVLTW LLKESLGGNS KTAMIATISP AASNIEETLS TLRYANQARL IVNIAKVND MNAKLIRELK
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AEIAKLKAAQ RNSRNIDPER YRLCRQEITS LRMKLHQQR DMAEMQRVWK EKFEQAEKRK  
LQETKELQKA GIMFQMDNHL PNLVNLNEDP QLSEMLLYMI KEGTTTVGKY KPNSSHDIQL  
SGVLIADDHC TIKNFGGTVS IIPVGEAKTY VNGKHILEIT VLRHGDRVIL GGDHYFRFNH  
PVEVQKGKRP SGRDTPISEG PKDFEFAKNE LLMAQRSQLE AEIKEAQLKA KEEMMQGIQI  
AKEMAAQQELS SQKAAYESKI KALEAELREE SQRKKMQEIN NQKANHKIEE LEKAKQHLEQ  
EIYVNKKRLE METLATKQAL EDHSIRHARI LEALETEKQK IAKEVQILQQ NRNNRDKTFT  
VQTTWSSMKL SMMIQEANAI SSKLKTYVVF GRHDISDKSS SDTSIRVRNL KLGISTFWSL  
EKFESKLAAM KELYESNGSN RGEDAFCDPE DEWEPDITDA PVSSLSRRRS RSLMKNRRIS  
GCLHDIQVHP IKNLHSSHSS GLMDKSSTIY SNSAESFLPG ICKELIGSSL DFFGQSYDEE  
RTIADSLINS FLKIYNGLFA ISKAHEEQDE ESQDNLFSSD RAIQSLTIQT ACAFEQLVVL  
MKHWLSDLLP CTNIARLEDE LRQEVKKLGG YLQLFLQGCC LDISSMIKEA QKNAIQIVQQ  
AVKYVQQLAV LKGSKLHFLE NGNNKAASVQ EEFMDAVCDG VGLGMKILLD SGLEKAKELQ  
HELFRQCTKN EVTKEMKTNA MGLIRSLNI FAESKIKSFR RQVQEEFQY QDFKRMVNRA  
PEFLKLKHCL EKAIEIIISA LKGCHSDINL LQTCVESIRN LASDFYSDFS VPSTSVGSYE  
SRVTHIVHQE LESLAKSLLF CFESEESPD LKPWETYNQN TKEEHQSKS SGIDGSKNKG  
VPKRVYELHG SSPAVSSEEC TPSRIQWV

**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

## Product Details

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!

### 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:	KIF14
Alternative Name:	KIF14 ( <a href="#">KIF14 Products</a> )
Background:	Kinesin-like protein KIF14,FUNCTION: Microtubule motor protein that binds to microtubules with high affinity through each tubulin heterodimer and has an ATPase activity (By similarity). Plays a role in many processes like cell division, cytokinesis and also in cell proliferation and apoptosis (PubMed:24784001, PubMed:16648480). During cytokinesis, targets to central spindle and midbody through its interaction with PRC1 and CIT respectively (PubMed:16431929). Regulates cell growth through regulation of cell cycle progression and

Target Details

cytokinesis (PubMed:24854087). During cell cycle progression acts through SCF-dependent proteasomal ubiquitin-dependent protein catabolic process which controls CDKN1B degradation, resulting in positive regulation of cyclins, including CCNE1, CCND1 and CCNB1 (PubMed:24854087). During late neurogenesis, regulates the cerebellar, cerebral cortex and olfactory bulb development through regulation of apoptosis, cell proliferation and cell division (By similarity). Also is required for chromosome congression and alignment during mitotic cell cycle process (PubMed:15843429). Regulates cell spreading, focal adhesion dynamics, and cell migration through its interaction with RADIL resulting in regulation of RAP1A-mediated inside-out integrin activation by tethering RADIL on microtubules (PubMed:23209302). {ECO:0000250|UniProtKB:L0N7N1, ECO:0000269|PubMed:15843429, ECO:0000269|PubMed:16431929, ECO:0000269|PubMed:16648480, ECO:0000269|PubMed:23209302, ECO:0000269|PubMed:24784001, ECO:0000269|PubMed:24854087}.

Molecular Weight: 186.5 kDa

UniProt: [Q15058](#)

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)

## Images



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