Datasheet for ABIN3093458

KIF14 Protein (AA 1-1648) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	KIF14
Protein Characteristics:	AA 1-1648
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This KIF14 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys), ELISA

Product Details

Sequence:	MSLHSTHNRN NSGDILDIPS SQNSSSLNAL THSSRLKLHL KSDMSECEND DPLLRSAGKV RDINRTYVIS ASRKTADMPL TPNPVGRLAL QRRTTRNKES SLLVSELEDT TEKTAETRLT LQRRAKTDSA EKWKTAEIDS 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 EMSFFEVYNE KIHDLLVCKD ENGQRKQPLR VREHPVYGPY VEALSMNIVS SYADIQSWLE LGNKQRATAA TGMNDKSSRS HSVFTLVMTQ TKTEFVEGEE HDHRITSRIN LIDLAGSERC STAHTNGDRL KEGVSINKSL LTLGKVISAL SEQANQRSVF IPYRESVLTW LLKESLGGNS KTAMIATISP AASNIEETLS TLRYANQARL IVNIAKVNED MNAKLIRELK

AEIAKLKAAQ RNSRNIDPER YRLCRQEITS LRMKLHQQER DMAEMQRVWK EKFEQAEKRK LQETKELQKA GIMFQMDNHL PNLVNLNEDP QLSEMLLYMI KEGTTTVGKY KPNSSHDIQL SGVLIADDHC TIKNFGGTVS IIPVGEAKTY VNGKHILEIT VLRHGDRVIL GGDHYFRFNH PVEVQKGKRP SGRDTPISEG PKDFEFAKNE LLMAQRSQLE AEIKEAQLKA KEEMMQGIQI AKEMAQQELS SQKAAYESKI KALEAELREE SQRKKMQEIN NQKANHKIEE LEKAKQHLEQ EIYVNKKRLE METLATKQAL EDHSIRHARI LEALETEKQK IAKEVQILQQ NRNNRDKTFT VQTTWSSMKL SMMIQEANAI SSKLKTYYVF 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 AVKYVGQLAV LKGSKLHFLE NGNNKAASVQ EEFMDAVCDG VGLGMKILLD SGLEKAKELQ HELFRQCTKN EVTKEMKTNA MGLIRSLENI FAESKIKSFR RQVQEENFEY QDFKRMVNRA PEFLKLKHCL EKAIEIIISA LKGCHSDINL LQTCVESIRN LASDFYSDFS VPSTSVGSYE SRVTHIVHQE LESLAKSLLF CFESEESPDL LKPWETYNQN TKEEHQQSKS SGIDGSKNKG VPKRVYELHG SSPAVSSEEC TPSRIQWV

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

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human KIF14 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 receival 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.

Product Details

	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.
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.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	KIF14
Alternative Name:	KIF14 (KIF14 Products)
Background:	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 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

Target Details

	(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:	187.4 kDa Including tag.
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 gurantee 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
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