Datasheet for ABIN3131055

KIF7 Protein (AA 1-1348) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	KIF7
Protein Characteristics:	AA 1-1348
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This KIF7 protein is labelled with His tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MGLEAQRLPG AEEAPVRVAL RVRPLLPKEL LHGHQSCLRV EPERGRITLG RDRHFGFHVV LGEDTGQEAV YQACVQPLLE AFFEGFNATV FAYGQTGSGK TYTMGEASVA SLHEDEQGII PRAMAEAFKL IDENDLLDCL VHVSYLELYK EEFRDLLEVG TASRDIQLRE DDRGNVVLCG VKEVDVEGLD EVLSLLEMGN AARHTGATHF NRLSSRSHTV FTVTLEQRGR TPSRLPRPAA GHLLVSKFHF VDLAGSERVL KTGSTGERLK ESIQINSTLL ALGNVISALG DPQRRGSHIP YRDSKITRIL KDSLGGNAKT VMIACVSPSS SDFDETLNTL NYASRAQNIR NRATVNWHPE AERVPEEQAA GARGPPRHRS ETRIIHRGRR VPCPAVGSAA VAAGLGAECA RCRARTSAAY SLLRELQAEP GLPGAAARKV RDWLCAVEGE RSTLSSASGP DSGIESAPAE DQAAQGTSGR KGDEGTQQLL TLQSQVARLE EENRDFLAAL EDAMEQYKLQ SDRLREQQEE MVELRLRLEL AQPGWGAPGL LQGLPPGSFV PRPHTAPLGG AHTHMLGMMP STCLPGEEVS SEQQVVSGKE VKAEVLAQAD KLRSASSTTS EEEGEEEEEE EEEEEEPPRR TLYLRRNGIS NWSQRAGLSP GSPPDRKGPE VCPEEPAAAI PAPQAVGSGK VPVQTRQAPA AMASEWRLAQ AQQKIRELAI

	NIRMKEELIG ELVRTGKAAQ ALNRQHSQRI RELEQEAERV RAELCEGQRQ LRELEGREPQ DASERSRLQE FRKRVAAAQS QVQVLKEKKQ ATERLVSLSA QSETRLQELE RNVQLMRRQQ GQLQRRLREE TEQKRRLETE MNKRQHRVKE LELKHEQQQK ILKIKTEEIA AFQRKRRSGS NGSVVSLEQQ QKIEEQKKWL DQEMEKVLQQ RRALEELGEE LRKREVILAK KEALMQEKTG LESKRLRSSQ ALNEDIVRVS SRLEHLEKEL SEKSGQLRQG SAQNQQQIRG EIDTLRQEKD SLLKQRLEID SKLRQGSLLS PEEERTLFQL DEAIEALDAA IEYKNEAITC RQRVLRASAS LLSQCEMNLM AKLSYLSSSE TRALLCKYFD KVVTLREEQH QQQIAFSELE MQLEEQQRLV YWLEVALERQ RLEMDRQLTL QQKEHEQNVQ LLLQQGRDHL GEGLADSKRQ YEARIHALEK ELGRHMWINQ ELKQKLSAGS TAGQSQGCER RSLCLENRQC LGNEDGLHPA APEPLWQSSL LEGVSRVWDE SRDLVHAPLP LTWKRSSLCS EQGSSEESRV RETTEPPVGR VLPMGEVGLS WNFGPLPKPR WEPRRTSPGM IDVRKNPL **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. • Mouse Kif7 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. 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:

Product Details

	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:	KIF7
Alternative Name:	Kif7 (KIF7 Products)
Background:	Essential for hedgehog signaling regulation: acts as both 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. Involved in the regulation of microtubular dynamics. Required for proper organization of the ciliary tip and control of ciliary localization of SUFU-GLI2 complexes. 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. Involved in the regulation of epidermal differentiation and chondrocyte development. {ECO:0000269|PubMed:19549984, ECO:0000269|PubMed:19592253, ECO:0000269|PubMed:19666503, ECO:0000269|PubMed:21795282, ECO:0000269|PubMed:23034632, ECO:0000269|PubMed:24952464}.
Molecular Weight:	152.6 kDa Including tag.
UniProt:	B7ZNG0
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 gurantee though.
Comment:	Protein has not been tested for activity yet. 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)

Images

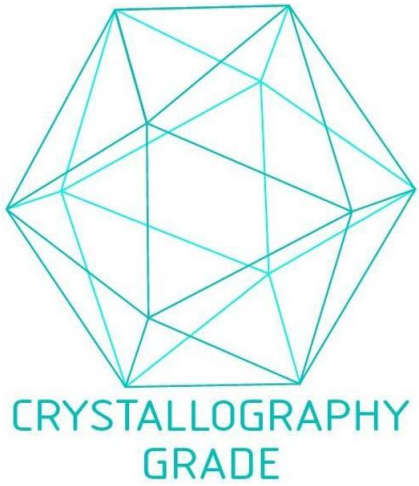

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process