

Datasheet for ABIN3130673

## Cullin 4B Protein (CUL4B) (AA 1-970) (His tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	Cullin 4B (CUL4B)
Protein Characteristics:	AA 1-970
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Cullin 4B protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

#### Product Details

Sequence:	MSRSTRSKER RENDTDSEDN SSETSNQERR RCRQGPPRPP YPPLLPPVFP PPTPPPQVRR TRGLQDLGAM KSVCPGTSGF SSPNPSAASA AAQEVRSATD GNTSTTPPTS AKKRKLNSSS SSSNSSNERE DFDSTSSSST PPQPRDSASP STSSFCLGVP VATSSHVPIQ KKLRFEDTLE FVGIDTKMAE ESSSSSSSSS PTAATSQQQQ QQQLKTKSIL ISSVASVHHA NGLAKSSTAV SSFANSKPGS AKKLVIKNFK DKPKLPENYT DETWQKLKEA VEAIQNSTSI KYNLEELYQA VENLCSHKIS ANLYKQLRQI CEDHIKAQIH QFREDSLDSV LFLKKIDRCW QNHCRQMIMI RSIFLFLDRT YVLQNSMLPS IWDMGLELFR AHIISDQKVQ TKTIDGILL IERERNGEAI DRSLLRSLLS MLSDLQIYQD SFEQQFLQET NRLYAAEGQK LMQEREVPEY LHHVNKRLEE EADRLITYLD QTTQKSILAS VEKQLLGEHL TAILQKGLNS LLDENRIQDL SLLYQLFSRV RGGVQVLLQQ WIEYIKAFGS TIVINPEKDK TMVQELLDFK DKVDHIIDTC FLKNEKFINA MKEAFETFIN KRPNKPAELI AKYVDSKLRA GNKEATDEEL EKMLDKIMII FRFIYGKDVF EAFYKKDLAK RLLVGKSASV DAEKSMLSKL KHECGAAFTS KLEGMFKDME LSKDIMIQFK
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QYMQNQNVPG NIELTVNILT MGYWPTYVPM EVHLPPEMVK LQEIFKTFYL GKHSGRKLQW  
QSTLGHCVLK AEFKEGKKEL QVSLFQTMVL LMFNEGEEFS LEEIKHATGI EDGELRRTLQ  
SLACGKARVL AKNPKGKDIE DGDKFICNDD FKHKLFRIKI NQIQMKETVE EQASTTERVF  
QDRQYQIDAA IVRIMKMRKT LSHNLLVSEV YNQLKFPVKP ADLKKRIESL IDR DYMERDK  
ENPNQYNYIA

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

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Cul4b 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 receipt 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.

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### 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.

## Product Details

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:	Cullin 4B (CUL4B)
Alternative Name:	Cul4b ( <a href="#">CUL4B Products</a> )
Background:	<p>Core component of multiple cullin-RING-based E3 ubiquitin-protein ligase complexes which mediate the ubiquitination and subsequent proteasomal degradation of target proteins. The functional specificity of the E3 ubiquitin-protein ligase complex depends on the variable substrate recognition subunit. CUL4B may act within the complex as a scaffold protein, contributing to catalysis through positioning of the substrate and the ubiquitin-conjugating enzyme. Plays a role as part of the E3 ubiquitin-protein ligase complex in polyubiquitination of CDT1, histone H2A, histone H3 and histone H4 in response to radiation-induced DNA damage. Targeted to UV damaged chromatin by DDB2 and may be important for DNA repair and DNA replication. Required for ubiquitination of cyclin E, and consequently, normal G1 cell cycle progression. Regulates the mammalian target-of-rapamycin (mTOR) pathway involved in control of cell growth, size and metabolism. Specific CUL4B regulation of the mTORC1-mediated pathway is dependent upon 26S proteasome function and requires interaction between CUL4B and MLST8 (By similarity). {ECO:0000250 UniProtKB:Q13620}.</p>
Molecular Weight:	111.7 kDa Including tag.
UniProt:	<a href="#">A2A432</a>

## 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:	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.

## Application Details

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