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Datasheet for ABIN3092568

## FBX018 Protein (AA 1-1043) (His tag)

### 1 Image

#### Overview

Quantity:	1 mg
Target:	FBX018
Protein Characteristics:	AA 1-1043
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This FBX018 protein is labelled with His tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

#### Product Details

Sequence: MRRFKRKHLT AIDCQHLARS HLAVTQPGGQ RWTNRDPNHG LYPKPRTKRG SRGQGSQRCI  
PEFFLAGKQP CTNDMAKSNS VGQDSCQDSE GDMIFPAESS CALPQEGSAG PGSPGSAPPS  
RKRSWSSEEE SNQATGTSRW DGVSCKAPRH HLSVPCTRPR EARQEAEDST SRLSAESGET  
DQDAGDVGPDP PIPDSYYGLL GTLPCQEALS HICSLPSEVL RHFVAFPLVE DLYWNLSLVC  
HLWREIISDP LFIPWKKLYH RYLMNEEQAV SKVDGILSNC GIEKESDLCV LNLIRYTATT  
KCSPSVDPER VLWSLRDHPL LPEAEACVRQ HLPDLYAAAG GVNIWALVAA VVLLSSSVND  
IQRLFLCLRR PSSTVTMPDV TETLYCIAVL LYAMREKGIN ISNRIHYNIF YCLYLQENSC  
TQATKVKEEP SVWPGKTIQ LTHEQQLILN HKMEPLQVVK IMAFAGTGKT STLVKYAEKW  
SQSRFLYVTF NKSIKQAER VFPSNVICKT FHSMAYGHIG RKYQSKKKLN LFKLTPFMVN  
SVLAEGKGGF IRAKLVCKTL ENFFASADEE LTIDHVPIWC KNSQGQRMV EQSEKLNGLV  
EASRLWDNMR KLGECTEEAH QMTHDGYLKL WQLSKPSLAS FDAIFVDEAQ DCTPAIMNIV  
LSQPCGKIFV GDFHQIYTF RGAVNALFTV PHTHVLYLTQ SFRFGVEIAY VGATILDVCK

RVRKKTLVGG NHQSGIRGDA KGQVALLSRT NANVFDEAVR VTEGEFSPRI HLIIGIKSFG  
LDRIIDIWIL LQPEEERRKQ NLVIKDKFIR RWVHKEGFSG FKRYVTAAED KELEAKIAVV  
EKYNIRIPEL VQRIEKCHIE DLDFAEYILG TVHKAKGLEF DTVHVLDDFV KVPCARHNLPL  
QLPHFRVESF SEDEWNLLYV AVTRAKKRLI MTKSLENILT LAGEYFLQAE LTSNVLKTGV  
VRCCVGQCNN AIPVDTVLTM KKLPIYTSNR KENKGGYLCH SCAEQRIGPL AFLTASPEQV  
RAMERTVENI VLPRHEALLF LVF

**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.
- Human FBX018 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

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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

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Target:	FBX018
Alternative Name:	FBX018 ( <a href="#">FBX018 Products</a> )
Background:	<p>3'-5' DNA helicase and substrate-recognition component of the SCF(FBX018) E3 ubiquitin ligase complex that plays a key role in response to stalled/damaged replication forks (PubMed:11956208, PubMed:23393192). Involved in genome maintenance by acting as an anti-recombinogenic helicase and preventing extensive strand exchange during homologous recombination: promotes RAD51 filament dissolution from stalled forks, thereby inhibiting homologous recombination and preventing excessive recombination (PubMed:17724085, PubMed:19736316). Also promotes cell death and DNA double-strand breakage in response to replication stress: together with MUS81, promotes the endonucleolytic DNA cleavage following prolonged replication stress via its helicase activity, possibly to eliminate cells with excessive replication stress (PubMed:23319600, PubMed:23361013). Plays a major role in remodeling of stalled DNA forks by catalyzing fork regression, in which the fork reverses and the two nascent DNA strands anneal (PubMed:25772361). In addition to the helicase activity, also acts as the substrate-recognition component of the SCF(FBX018) E3 ubiquitin ligase complex, a complex that mediates ubiquitination of RAD51, leading to regulate RAD51 subcellular location (PubMed:25585578). {ECO:0000269 PubMed:11956208, ECO:0000269 PubMed:17724085, ECO:0000269 PubMed:19736316, ECO:0000269 PubMed:23319600, ECO:0000269 PubMed:23361013, ECO:0000269 PubMed:25585578, ECO:0000269 PubMed:25772361}.</p>

Molecular Weight:	118.6 kDa Including tag.
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UniProt:	<a href="#">Q8NFZ0</a>
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## Application Details

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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
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## Application Details

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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

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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

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