

Datasheet for ABIN3090298
BUB1 Protein (AA 1-1085) (His tag)[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	BUB1
Protein Characteristics:	AA 1-1085
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This BUB1 protein is labelled with His tag.
Application:	Western Blotting (WB), ELISA, Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	MDTPENVLQM LEAHMQSYKG NDPLGEWERY IQWVEENFPE NKEYLITLLE HLMKEFLDKK KYHNDPRFIS YCLKFAEYNS DLHQFFEFY NHGIGTLSSP LYIAWAGHLE AQGELQHASA VLQRGIQNQA EPREFLQQY RLFQTRLTET HLPARTSE PLHNQVLNQ MITSKSNPGN NMACISKNQ SELSGVISSA CDKESNMERR VITISKSEYS VHSSLASKVD VEQVVMYCKE KLIRGESEFS FEELRAQKYN QRRKHEQWVN EDRHYMKRKE ANAFEEQLLK QKMDLHKKL HQVVETSHED LPASQERSEV NPARMGPSVG SQQLRAPCL PVTYQTPVN MEKNPREAPP VVPPLANAIS AALVSPATSQ SIAPPVPLKA QTVTDSMFAV ASKDAGCVNK STHEFKPQSG AEIKEGCETH KVANTSSFHT TPNTSLGMVQ ATPSKVQSP TVHTKEALGF IMNMFQAPTL PDISDDKDEW QSLDQNEAF EAQFQKNVRS SGAWGVNKII SSLSAFHVF EDGNKENYGL PQPKNKPTGA RTFGERSVSR LPSKPKEEV HAEFLDDST VWGIRCNKTL APSPKSPGDF TSAAQLASTP FHKLPPVESVH ILEDKENVVA KQCTQATLDS CEENMVVPSR DGKFSPIQEK SPKQALSSHM YSASLLRLSQ PAAGGVLTC AELGVEACRL TDTDAIAED PPDAIAGLQA
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EWMQMSSSLGT VDAPNFIVGN PWDDKLIFKL LSGLSKPVSS YPNTFEWQCK LPAIKPKTEF
QLGSKLVYVH HLLGEGAFAQ VYEATQGDLN DAKNKQKFVL KVQKPANPWE FYIGTQLMER
LKPSMQHMFH KFYSAHLFQN GSVLVGELYS YGTLLNAINL YKNTPEKVMP QGLVISFAMR
MLYMIEQVHD CEIIGHDIKP DNFILGNGFL EQDDEDDLSA GLALIDLGQS IDMKLFPKGT
IFTAKCETSG FQCVEMLSNK PWNQIDYFG VAATVYCMLF GTYMKVKNEG GECKPEGLFR
RLPHLDMWNE FFHVMLNIPD CHHLPSDLL RQKLKKVFQQ HYTNKIRALR NRLIVLLEEC KRSRK

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 BUB1 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.

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:	BUB1
Alternative Name:	BUB1 (BUB1 Products)
Background:	<p>Serine/threonine-protein kinase that performs 2 crucial functions during mitosis: it is essential for spindle-assembly checkpoint signaling and for correct chromosome alignment. Has a key role in the assembly of checkpoint proteins at the kinetochore, being required for the subsequent localization of CENPF, BUB1B, CENPE and MAD2L1. Required for the kinetochore localization of PLK1. Plays an important role in defining SGOL1 localization and thereby affects sister chromatid cohesion. Acts as a substrate for anaphase-promoting complex or cyclosome (APC/C) in complex with its activator CDH1 (APC/C-Cdh1). Necessary for ensuring proper chromosome segregation and binding to BUB3 is essential for this function. Can regulate chromosome segregation in a kinetochore-independent manner. Can phosphorylate BUB3. The BUB1-BUB3 complex plays a role in the inhibition of APC/C when spindle-assembly checkpoint is activated and inhibits the ubiquitin ligase activity of APC/C by phosphorylating its activator CDC20. This complex can also phosphorylate MAD1L1. Kinase activity is essential for inhibition of APC/CCDC20 and for chromosome alignment but does not play a major role in the spindle-assembly checkpoint activity. Mediates cell death in response to chromosome missegregation and acts to suppress spontaneous tumorigenesis. {ECO:0000269 PubMed:10198256, ECO:0000269 PubMed:15020684, ECO:0000269 PubMed:15525512, ECO:0000269 PubMed:15723797, ECO:0000269 PubMed:16760428, ECO:0000269 PubMed:17158872, ECO:0000269 PubMed:19487456}.</p>
Molecular Weight:	123.3 kDa Including tag.
UniProt:	O43683

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
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Application Details

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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)

Images



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