

# Datasheet for ABIN3137611

# BUB1B Protein (AA 1-1052) (Strep Tag)



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## Overview

Quantity:	250 μg
Target:	BUB1B
Protein Characteristics:	AA 1-1052
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This BUB1B protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Brand:	AliCE®
Sequence:	MAEASEAMCL EGAEWELSKE NIQPLRHGRV MSTLQGALAK QESAGHTALQ QQKRAFESEI
	RFYSGDDPLD VWDRYINWTE QNYPQGGKES NMSALVERAI EALQGETRYY NDPRFLSLWI
	KLGHLCNEPL DMYSYLQSQG IGVSLAQFYI SWAEEYEARE NFKKADIIFQ EGIERKAEPL
	DRLQSQHRQF QSRVSRQAFL ALGNEEEEAL EPSEPQRSSL AELKSRGKKM ARAPISRVGG
	ALKAPGQSRG FLNAVPQPVH GNRRITVFDE NADTASRTEL SKPVAQPWMA PPVPRAKENE
	LQPGPWSTDR PAGRRPHDNP ASVTSIPSVL PSFTPYVEES AQQTVMTPCK IEPSINHVLS
	TRKPGREEGD PLQRVQSHQQ GCEEKKEKMM YCKEKIYAGV GEFSFEEIRA EVFRKKLKER
	REAELLTSAK KREEMQKQIE EMERRLKAMQ AVQQEGAGGQ QEEKMPTEDP ARLQIASGPQ
	EMSGVPLSCS ICPLSSNPRE ISPAENILQE QPDSKGSSMP FSIFDESLSD KKDKSPATGG
	PQVLNAQRRP LSVLKTTEVG TTNEDVSPDI CDELTELEPL SEDAIITGFR NVTLCPNPED
	TCDFARAARL ASTPFHEILS SKGIAADPEG LLQEEDLDGK AAEAHHTVHH QALIIKKLSP

IIEESREATH SSGFSRSSSS APSTSSIKGF QLLEKLELTN DGAEDAIQSP WCSQYRLQLL
KSLLELSAFA EFSVEDRPMP VLEIGKEIEL GPEDYVIKQE HLTCDDYRLF WVAPRSSAEL
TMIKASSQPI PWDFYINLKL KERLNEDYDQ LCSCCQYQDG HVVWYQYINC STLQNLLQHS
EFVTHEIIVL IIYNLLTIVE KLHRAEIVHG DLSPRSLILR NRIHDPYDYV NKDDHAVRIM
DFSYSVDLRV QLDAFAYSGF RTAQILEGQK ILANCSSPYH VDLLGIADLA HLLLFKEHLH
VFWDGLLWKL SQSTSELKDS ELWNKFFVRI LNASDKSTVS VLGELAAEMG GAFDATFHSH
LNRALWKLGK TISPEALLTQ QDKQPGGSQS PA

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

#### Characteristics:

## Key Benefits:

- Made in Germany from design to production by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- · 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 try to ensure that you receive soluble 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.

### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require posttranslational modifications.
- During lysate production, the cell wall and other cellular components that are not required for
  protein production are removed, leaving only the protein production machinery and the
  mitochondria to drive the reaction. During our lysate completion steps, the additional
  components needed for protein production (amino acids, cofactors, etc.) are added to
  produce something that functions like a cell, but without the constraints of a living system all that's needed is the DNA that codes for the desired protein!

#### Concentration:

• The concentration of our recombinant proteins is measured using the absorbance at 280nm.

• The protein's absorbance will be measured against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein. Purification: One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®). Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC). Grade: custom-made **Target Details** Target: BUB1B Alternative Name: Bub1b (BUB1B Products) Background: Mitotic checkpoint serine/threonine-protein kinase BUB1 beta (EC 2.7.11.1) (MAD3/BUB1related protein kinase) (BubR1) (Mitotic checkpoint kinase MAD3L), FUNCTION: Essential component of the mitotic checkpoint. Required for normal mitosis progression and tumor suppression. The mitotic checkpoint delays anaphase until all chromosomes are properly attached to the mitotic spindle. One of its checkpoint functions is to inhibit the activity of the anaphase-promoting complex/cyclosome (APC/C) by blocking the binding of CDC20 to APC/C, independently of its kinase activity. The other is to monitor kinetochore activities that depend on the kinetochore motor CENPE. Required for kinetochore localization of CENPE. Negatively regulates PLK1 activity in interphase cells and suppresses centrosome amplification. Also implicated in triggering apoptosis in polyploid cells that exit aberrantly from mitotic arrest. Essential for tumor suppression. May play a role in regulating aging and fertility (By similarity). {ECO:0000250, ECO:0000269|PubMed:14744753, ECO:0000269|PubMed:15208629}. Molecular Weight: 118.4 kDa UniProt: Q9Z1S0 **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: ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from

Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce

## **Application Details**

even the most difficult-to-express proteins, including those that require post-translational modifications.

During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Restrictions:

For Research Use only

## Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.  Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months