Datasheet for ABIN3131338

BUB1 Protein (AA 1-1058) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	BUB1
Protein Characteristics:	AA 1-1058
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This BUB1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MDNLENVFRM FEAHMQSYTG NDPLGEWESF IKWVEENFPD NKEYLMTLLE HLMKEFLHKK NYHNDSRFIN YCLKFAEYNS DRHQFFEFLY NQGIGTKSSY IYMSWAGHLE AQGELQHASA IFQTGIHNEA EPKELLQQQY RLFQARLTGI HLPAQATTSE PLHSAQILNQ VMMTNSSPEK NSACVPKSQG SECSGVASST CDEKSNMEQR VIMISKSECS VSSSVAPKPE AQQVMYCKEK LIRGDSEFSF EELRAQKYNQ RKKHEQWVSE DRNYMKRKEA NAFEEQLLKQ KMDELHKKLH QVVELSHKDL PASENRPDVS LVCVGQNTCS QQELRGPSLS SISHQTSESS GEKPQEEPSV PLMVNAVNST LLFPAANLPA LPVPVSGQSL TDSRCVNQSV HEFMPQCGPE TKEVCETNKV ASINDFHTTP NTSLGMVQGT PCKVQPSPTV HTKEALGFIM DMFQAPTLPD ISDDKDEWPS LDQNEDAFEA QFQKNAVSSG DWGVKKIMTL SSAFPIFEDG NKENYGLPQP KNKPLGARTF GERSLSKYSS RSNEMPHTDE FMDDSTVCGI RCNKTLAPSP KSIGDFTSAA QLSSTPFHKF PADLVQIPED KENVVATQYT HMALDSCKEN IVDLSKGRKL GPIQEKISAS LPCPSQPATG

GLFTQEAVFG LEAFKCTGID HATVEDLSDA NAGLQVECVQ TLGNVNAPSF TVENPWDDEL ILKLLSGLSK PVTSYSNTFE WQSKLPAIKT KTEYQLGSLL VYVNHLLGEG AFAQVFEAIH GDVRNAKSEQ KCILKVQRPA NSWEFYIGMQ LMERLKPEVH HMFIKFYSAH LFKNGSILVG ELYSYGTLLN VINLYKNTSE KVMPQALVLT FAIRMLYMVE QVHSCEIIHG DIKPDNFILG HRFLEQADED LATGLALIDL GQSIDMKLFP KGTVFTGKCE TSGFQCPEML SNKPWNYQID YFGVAATIYC MLFGSYMKVK NEGGVWKPEG LFRRLPHLDM WEEFFHIMLN IPDCHNLPSL DFLRQNMKKL LEQQYSNKIK TLRNRLIVML SEYKRSRK

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 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!

Concentration:

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

Product Details

- 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:	BUB1
Alternative Name:	Bub1 (BUB1 Products)
Background:	Mitotic checkpoint serine/threonine-protein kinase BUB1 (mBUB1) (EC 2.7.11.1) (BUB1A),FUNCTION: 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. Required for centromeric enrichment of AUKRB in prometaphase. Plays an important role in defining SGO1 localization and thereby affects sister chromatid cohesion. Promotes the centromeric localization of TOP2A (By similarity). 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. Essential during early and later stages of embryonic development. Necessary for postimplantation embryogenesis and proliferation of primary embryonic fibroblasts and plays an important role in spermatogenesis and fertility. {ECO:0000250|UniProtKB:O43683, ECO:0000269|PubMed:17925231, ECO:0000269|PubMed:17938250, ECO:0000269|PubMed:19772675}.

Target Details

Molecular Weight:	119.6 kDa
UniProt:	O08901

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 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 **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months