

Datasheet for ABIN3132191

## BLM Protein (AA 1-1416) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	BLM
Protein Characteristics:	AA 1-1416
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This BLM protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Brand:	AliCE®
Sequence:	MAAVPLNNLQ EQLQRHSARK LNNQPSLSKP KSLGFTFKKK TSEGDVSVTS VSVVKTPALS DKDVNVSEAF SFTESPLHKP KQQAIEGFF KHFPGRQQSK GTCSEPSLPA TVQTAQDTLC TTPKTPTAKK LPVAVFKKLE FSSSADSLSD WADMDDFDMS ASDAFASLAK NPATRVSTAQ KMKKTKRNFF KPPPRKANAV KTDLTTPSPE CLQVDLTKE EEEEEEEEA EGADCLSRDV ICIDNDSASE ELTEKDTQES QSLKAHLGAE RGDSEKKSHE DEAVFHSVQN TEYFEHNDND YDIDFVPPSP EEEISTASSS LKCSSMLKDL DSDSKEKGIL STSEELLSKP EEMTTHKSDA GTSKDCDAQQ IRIQQQLIHV MEHICKLVDT VPTDELEALN CGTELLQQRN IRRKLLAEAG FNGNDVRLLG SLWRHRPDSL DNTVQGDSCP VGHPNKELNS PYLLSHSPST EECLPTTTPG KTGFSATPKN LFERPLLNSH LQKSFVSSNW AETPRMENRN ESTDFPGSVL TSTTVKAQSK QAASGWNVER HGQASYDIDN FNIDDFDDDD DDDDWENIMH NFPASKSSTA TYPPIKEGGP VKSLSERISS AKAKFLPVVS TAQNTNLSES IQNCSDKLAQ NLSSKNPKHE HFQSLNFPHT

KEMMKIFHKK FGLHNFRTNQ LEAINAALLG EDCFILMPTG GGKSLCYQLP ACVSPGVTIV  
ISPLRSLIVD QVQKLTSFDI PATYLTGDKT DSEAANIYLO LSKKDPIIKL LYVTPEKVCA SNRLISTLEN  
LYERKLLARF VIDEAHCVSQ WGHDFRQDYK RMNMLRQKFP SVPVMALTAT ANPRVQKDIL  
TQLKILRPQV FSMSFNRHNL KYYVLPKKPK KVAFDCLEWI RKHHPYDSGI IYCLSRRECD  
TMADTLQREG LAALAYHAGL SDSARDEVQH KWINQDNCQV ICATIAFGMG IDKPDVRFVI  
HASLPKSMEG YYQESGRAGR DGEISHCVLF YTYHDVTRLK RLIMMEKDG N YHTKETHVNN  
LYSMVHYCEN ITECRRIQLL AYFGEKGFNP DFCKKYPDVS CDNCCKTKDY KTKDVTDDVK  
NIIRFVQEHSSSPGTRNIGP AGRFTLNMLV DIFLGSKSAK VKSGIFGKGT TYSRHNAERL  
FKKLILDKIL DEDLYINAND QPIAYVMLGT KAHSVLSGHL KVDFMETENS SSIKKQKALV  
AKVSQREEVV KKCLGELTEV CKLLGKVFGV HYFNIFNTAT LKKLAESLSS DPEVLLQIDG  
VTEDKLEKYG AEVIPVLQKY SEWTVPAEDG SPGARGAPED TEEEEEEAPV SSHYFANQTR  
NERKRKKMSA THKPKRRRTS YGGFRAKGGG TCRKTTSSK KFYGVGTGSRASASCASQATSS  
ASRKLGI MAP PKPVNRTFLR PSYAFS

**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.**

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### 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

## Product Details

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:	BLM
Alternative Name:	Blm ( <a href="#">BLM Products</a> )
Background:	RecQ-like DNA helicase BLM (EC 5.6.2.4) (Bloom syndrome protein homolog) (mBLM) (DNA 3'-5' helicase BLM) (RecQ helicase homolog),FUNCTION: ATP-dependent DNA helicase that unwinds single- and double-stranded DNA in a 3'-5' direction (PubMed:9840919). Participates in DNA replication and repair (By similarity). Involved in 5'-end resection of DNA during double-strand break (DSB) repair: unwinds DNA and recruits DNA2 which mediates the cleavage of 5'-ssDNA (PubMed:9840919). Negatively regulates sister chromatid exchange (SCE) (PubMed:9840919, PubMed:27010503). Stimulates DNA 4-way junction branch migration and DNA Holliday junction dissolution. Binds single-stranded DNA (ssDNA), forked duplex DNA and DNA Holliday junction (By similarity). Recruited by the KHDC3-OOEP scaffold to DNA replication forks where it is retained by TRIM25 ubiquitination, it thereby promotes the restart of stalled replication forks. {ECO:0000250 UniProtKB:P54132, ECO:0000269 PubMed:27010503, ECO:0000269 PubMed:29125140, ECO:0000269 PubMed:9840919}.
Molecular Weight:	158.4 kDa
UniProt:	<a href="#">O88700</a>
Pathways:	<a href="#">DNA Damage Repair</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:** 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