

Datasheet for ABIN3089946

BLM Protein (AA 1-1417) (Strep Tag)

1 Image



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Overview

Quantity:	1 mg
Target:	BLM
Protein Characteristics:	AA 1-1417
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This BLM protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MAAVPQNNLQ EQLERHSART LNNKLSLSKP KFSGFTFKKK TSSDNNVSVT NVSVAKTPVL RNKDVNVTED FSFSEPLPNT TNQQRVKDFF KNAPAGQETQ RGGSKSLLPD FLQTPKEVVC TTQNTPTVKK SRDTALKKLE FSSSPDSLST INDWDDMDDF DTSETSKSFV TPPQSHFVRV STAQKSKKGK RNFFKAQLYT TNTVKTDLPP PSSESEQIDL TEEQKDDSEW LSSDVICIDD GPIAEVHINE DAQESDSLKT HLEDERDNSE KKKNLEEAEL HSTEKVPCIE FDDDDYDTDF VPPSPEEIIS ASSSSSKCLS TLKDLTSDR KEDVLSTSKD LLSKPEKMSM QELNPETSTD CDARQISLQQ QLIHVMEHIC KLIDTIPDDK LKLLDCGNEL LQQRNIRRKL LTEVDFNKSD ASLLGSLWRY RPDSLDGPME GDSCPTGNSM KELNFSHLPS NSVSPGDCLL TTTLGKTGFS ATRKNLFERP LFNTHLQKSF VSSNWAETPR LGKKNESSYF PGNVLTSTAV KDQNKHTASI NDLERETQPS YDIDNFDIDD FDDDDDWEDI MHNLAASKSS TAAYQPIKEG RPIKSVSERL SSAKTDCLPV SSTAQNINFS ESIQNYTDKS AQNLASRNLK HERFQSLSFP HTKEMMKIFH KKFGLHNFRT NQLEAINAAL LGEDCFILMP TGGGKSLCYQ LPACVSPGVT VVISPLRSLI
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VDQVQKLTSL DIPATYLTGD KTDSEATNIY LQLSKKDPII KLLYVTPEKI CASNRLISTL  
ENLYERKLLA RFVIDEAHCV SQWGHDFRQD YKRMNMLRQK FPSVPVMALT ATANPRVQKD  
ILTQLKILRP QVFSMSFNRH NLKYYVLPKK PPKVAFDCLE WIRKHHYPYDS GIYCLSRRE  
CDTMADTLQR DGLAALAYHA GLSDSARDEV QQKWINQDGC QVICATIAFG MGIDKPDVRF  
VIHASLPKSV EGYQESGRA GRDGEISHCL LFYTYHDVTR LKRLIMMEKD GNHHTRETHF  
NNLYSMVHYC ENITECRRIQ LLAYFGENG FNPDFCKKHPD VSCDNCKTK DYKTRDVTDD  
VKSIVRFVQE HSSSQGMRNI KHVGPSGRFT MNMLVDIFLG SKSAKIQSGI FGKGSAYSRIH  
NAERLFKKLI LDKILDEDLY INANDQAIAY VMLGNKAQTV LNGNLKVDFM ETENSSSVKK  
QKALVAKVSQ REEMVKKCLG ELTEVCKSLG KVFGVHYFNI FNTVTLKKLA ESLSSDPEVL  
LQIDGVTEDEK LEKYGAEVIS VLQKYSEWTS PAEDSSPGIS LSSSRGPGRS AAEELDEEIP  
VSSHVFASKT RNERKRKKMP ASQRSKRRKT ASSGSKAKGG SATCRKISSK TKSSSIIGSS  
SASHTSQATS GANSKLGIMA PPKPINRPFL KPSYAFS

**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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 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.

#### 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

## Product Details

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 in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):  1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

## 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) (DNA 3'-5' helicase BLM) (DNA helicase, RecQ-like type 2) (RecQ2) (RecQ protein-like 3),FUNCTION: ATP-dependent DNA helicase that unwinds single- and double-stranded DNA in a 3'-5' direction (PubMed:9388193, PubMed:24816114, PubMed:25901030). Participates in DNA replication and repair (PubMed:12019152, PubMed:21325134, PubMed:23509288, PubMed:34606619). 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:21325134). Negatively regulates sister chromatid exchange (SCE) (PubMed:25901030). Stimulates DNA 4-way junction branch migration and DNA Holliday junction dissolution (PubMed:25901030). Binds single-stranded DNA (ssDNA), forked duplex DNA and DNA Holliday junction (PubMed:20639533,

## Target Details

PubMed:24257077, PubMed:25901030). Recruited by the KHDC3L-OOEP scaffold to DNA replication forks where it is retained by TRIM25 ubiquitination, it thereby promotes the restart of stalled replication forks (By similarity). {ECO:0000250|UniProtKB:O88700, ECO:0000269|PubMed:12019152, ECO:0000269|PubMed:20639533, ECO:0000269|PubMed:21325134, ECO:0000269|PubMed:23509288, ECO:0000269|PubMed:24257077, ECO:0000269|PubMed:24816114, ECO:0000269|PubMed:25901030, ECO:0000269|PubMed:34606619, ECO:0000269|PubMed:9388193}., FUNCTION: (Microbial infection) Eliminates nuclear HIV-1 cDNA, thereby suppressing immune sensing and proviral hyper-integration. {ECO:0000269|PubMed:32690953}.

Molecular Weight:	159.0 kDa
UniProt:	<a href="#">P54132</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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request,

## Handling

	please contact us.
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