

Datasheet for ABIN3091815

Claspin Protein (CLSPN) (AA 1-1339) (Strep Tag)



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Overview

Quantity:	1 mg
Target:	Claspin (CLSPN)
Protein Characteristics:	AA 1-1339
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Claspin protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MTGEVGSEVH LEINDPNVIS QEEADSPSDS GQGSYETIGP LSEGDSDEEI FVSKKLKNRK VLQSDSETE DTNASPEKTT YDSAEENKE NLYAGKNTKI KRIYKTVADS DESYMEKSLY QENLEAQVKP CLELSLQSGN STDFTTDRKS SKKHIHDKEG TAGKAKVKSK RRLEKEERKM EKIRQLKKKE TKNQEDDVEQ PFNDSGCLLV DKDLFETGLE DENNSPLEDE ESLESIRAAV KNKVKKHKKK EPSLESGVHS FEEGSELSKG TTRKERKAAR LSKEALKQLH SETQRLIRES ALNLPYHMPE NKTIHDFFKR KPRPTCHGNA MALLKSSKYQ SSHHKEIIDT ANTTEMNSDH HSGKSEQTTG AENEVETNAL PVVSKETQII TGSDDESCRKD LVKNEELEIQ EKQKQSDIRP SPGDSSVLQQ ESNFLGNNHS EECQVGGLVA FEPHALEGEQ PQNPEETDEK VEEPEQQNKS SAVGPPKVR RFTLDRKQL GVDVSIKPLR GADEDSFVIL EPETNRELEA LKQRFWKHAN PAAKPRAGQT VNVNVIVKDM GTDGKEELKA DVVPVTLAPK KLDGASHTKP GEKLQVLKAK LQEAMKLRRF EERQKRQALF KLDNEDGFEE EEEEEEMTD ESEEDGEKEV EKEEKEEEE EEEEKEEEE EEGNQETAEF LLSSEEIETK DEKEMDKENN DGSSEIGKAV GFLSVPKSLS
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SDSTLLLFKD SSSKMGYFPT EEKSETDENS GKQPSKLDDE DSCSLLTKE SHNSSFELIG  
STIPSYQPCN RQTGRGTSFF PTAGGFRSPS PGLFRASLVS SASKSSGKLS EPSLPIEDSQ  
DLYNASPEPK TLFLGAGDFQ FCLEDDTQSQ LLDADGFLNV RNHRNQYQAL KPRLPLASMD  
ENAMDANMDE LLDLCTGKFT SQA EKHLPRK SDKKENMEEL LNLCSGKFTS QDASTPASSE  
LNKQEKESM GDPMEELAL CSGSFPTDKE EEEEEEEFGD FRLVSNDNEF DSEDEHSDS  
GNDLALEDHE DDDEEELLKR SEKLKQMR L R KYLEDEAEV SGSDVGSEDE YDGEEIDEYE  
EDVIDEVLPS DEELQSQIKK IHMKTMLDDD KRQLRLYQER YLADGDLHSD GPGRMRKFRW  
KNIDDASQMD LFHRDSDDQ TEEQLDESEA RWRKERIERE QWLRDMAQQG KITAEIEEEI  
GEDSQFMILA KKVTA KALQK NASRPMVIQE SKSLLRNPFE AIRPGSAQQV KTGSLLNQPK  
AVLQKLAALS DHNPSAPRNS RNFVFHTLSP VKAEAAKESS KSQVKKRGPS FMTSPSPKHL  
KTDDSTGLT RSIFKYLE

**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 components needed for protein production (amino acids, cofactors, etc.) are added to

Product Details

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:	Claspin (CLSPN)
Alternative Name:	CLSPN ( <a href="#">CLSPN Products</a> )
Background:	Claspin (hClaspin),FUNCTION: Required for checkpoint mediated cell cycle arrest in response to inhibition of DNA replication or to DNA damage induced by both ionizing and UV irradiation (PubMed:12766152, PubMed:15190204, PubMed:15707391, PubMed:16123041). Adapter protein which binds to BRCA1 and the checkpoint kinase CHEK1 and facilitates the ATR-dependent phosphorylation of both proteins (PubMed:12766152, PubMed:15707391, PubMed:15096610, PubMed:16123041). Also required to maintain normal rates of replication fork progression during unperturbed DNA replication. Binds directly to DNA, with particular affinity for branched or forked molecules and interacts with multiple protein components of the replisome such as the MCM2-7 complex and TIMELESS (PubMed:15226314, PubMed:35585232, PubMed:34694004). Important for initiation of DNA replication, recruits kinase CDC7 to phosphorylate MCM2-7 components (PubMed:27401717).

## Target Details

{ECO:0000269|PubMed:12766152, ECO:0000269|PubMed:15096610, ECO:0000269|PubMed:15190204, ECO:0000269|PubMed:15226314, ECO:0000269|PubMed:15707391, ECO:0000269|PubMed:16123041, ECO:0000269|PubMed:27401717, ECO:0000269|PubMed:34694004, ECO:0000269|PubMed:35585232}.

Molecular Weight: 151.1 kDa

UniProt: [Q9HAW4](#)

## 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. If you have a special request, 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)



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