

Datasheet for ABIN3135227

## CTC1 Protein (AA 1-1212) (Strep Tag)



[Go to Product page](#)

### Overview

Quantity:	250 µg
Target:	CTC1
Protein Characteristics:	AA 1-1212
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CTC1 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

### Product Details

Brand:	AlIcE®
Sequence:	MAACRAQPPT SEQAWLEAAQ TFIQETLCPA GKEVDKELTR SVIACVKETW LSQGENQDLT LPFSYSFVSV QSLKTHQRLP CCSHLSWSQS AYQAWTRGGR PGDGVLPREQ LILLGTLVDL LGDSECECRS GSLYVRDNTG TLDCELIDLD LSWLGHLFLF PSWSYLPSAK RNSLGEHLE LWGTPVPVFP LTVSPGPLIP IPVLYPEKAS HLLRYRKSS IKEINLAGKL VHLSALIITQ NKRYFIMTLG ELAQAGSQVS IIVQIPAMV WHRVLRPGRA YVLTQLQVTK TRIHLSCIWT TIPSTLKPL RPYGVQEL LDFSKADLK PPPQPTSSKD SRQEGLVRA SKVLHYLGTV TAVLHESAGL YILDGQLILC LAYQKIHGLR RVIRPGVCLE LRDVHLLQAV GGATTKPVLA LCLHGTVRLQ GFSCCLKPLTL PSSKVYGASL YEQLVWKCQL GLPLYLWAAK TLEDLIYKLC PHVLRCHQFL KQPSPGKPSL GLQLLAPSWD VLIPPGSPMR HAYSEILEEP HNCPLQKYTP LQTPYSFPTM LALAEQGHR AWATFDPKAM LPLPEASHLT SCQLNRHLAW SWVCLPSCVF QPAQVLLGVL VASSRKGCL LRDLRGSLPC IPLTESSQPL IDPNLVGCLV RVEKFQLVVE

REVRSSFPSW EEMGMARFIQ KKQARVYVQF YLADALILPV PRPTFGSEPS QTASSCPEGP  
HLGQSRLFLL SHKEALMKRN FCLLPGDSSQ PAKPTLSFHV SGTWLCGTQR KEGSGWSPPE  
SLAVESKDQK VFLIFLGSSV RWFPFLYPNQ VYRLVASGPS QTPVFETEGS AGTSRRPLEL  
ADCGSCLTVQ EEWTLELGSS QDIPNVLEVP RTLPESSLAQ LLGDNSPDSL VSFSAEILSR  
ILCEPPLALR RMKPGNAGAI KTG VKLTVAL EMDDCEYPPH LDIYIEDPQL PPQIGLLPGA  
RVHFSQLEKR ISRSNIVYCC FRSSSTSVQVL SFPPETKASA PLPHIYLAEL LQGDRPPFQA  
TTSCHIVYVL SLQILWVCAH CTSICPQGKC SRRDPSCPSQ RAVSQANIRL LVEDGTAEAT  
VICRNHLVAR ALGLSPSEWS SILEHARGPG RVALQFTGLG GQTESASKTH EPLTLLRTL  
CTSPFVLRPV KLSFALERRP TDISPREPSR LQQFQCGELP LLTRVNPRLR LVCLSLQEPE  
LPNPPQASAA SS

**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.
- 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:	CTC1
Alternative Name:	Ctc1 ( <a href="#">CTC1 Products</a> )
Background:	<p>CST complex subunit CTC1 (Alpha-accessory factor of 132 kDa) (AAF-132) (AAF132) (Conserved telomere maintenance component 1),FUNCTION: Component of the CST complex proposed to act as a specialized replication factor promoting DNA replication under conditions of replication stress or natural replication barriers such as the telomere duplex. The CST complex binds single-stranded DNA with high affinity in a sequence-independent manner, while isolated subunits bind DNA with low affinity by themselves. Initially the CST complex has been proposed to protect telomeres from DNA degradation (PubMed:19854130). However, the CST complex has been shown to be involved in several aspects of telomere replication. The CST complex inhibits telomerase and is involved in telomere length homeostasis, it is proposed to bind to newly telomerase-synthesized 3' overhangs and to terminate telomerase action implicating the association with the ACD:POT1 complex thus interfering with its telomerase stimulation activity. The CST complex is also proposed to be involved in fill-in synthesis of the telomeric C-strand probably implicating recruitment and activation of DNA polymerase alpha. The CST complex facilitates recovery from many forms of exogenous DNA damage, seems to be involved in the re-initiation of DNA replication at repaired forks and/or dormant origins. Involved in telomere maintenance. Involved in genome stability (By similarity). May be involved in telomeric C-strand fill-in during late S/G2 phase (PubMed:22748632).</p> <p>{ECO:0000250 UniProtKB:Q2NKJ3, ECO:0000269 PubMed:19854130, ECO:0000269 PubMed:22748632}.</p>

## Target Details

Molecular Weight: 134.0 kDa

UniProt: [Q5SUQ9](#)

## 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