Datasheet for ABIN3091933

CTC1 Protein (AA 1-1217) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	CTC1
Protein Characteristics:	AA 1-1217
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CTC1 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MAAGRAQVPS SEQAWLEDAQ VFIQKTLCPA VKEPNVQLTP LVIDCVKTVW LSQGRNQGST LPLSYSFVSV QDLKTHQRLP CCSHLSWSSS AYQAWAQEAG PNGNPLPREQ LLLLGTLTDL SADLEQECRN GSLYVRDNTG VLSCELIDLD LSWLGHLFLF PRWSYLPPAR WNSSGEGHLE LWDAPVPVFP LTISPGPVTP IPVLYPESAS CLLRLRNKLR GVQRNLAGSL VRLSALVKSK QKAYFILSLG RSHPAVTHVS IIVQVPAQLV WHRALRPGTA YVLTELRVSK IRGQRQHVWM TSQSSRLLLL KPECVQELEL ELEGPLLEAD PKPLPMPSNS EDKKDPESLV RYSRLLSYSG AVTGVLNEPA GLYELDGQLG LCLAYQQFRG LRRVMRPGVC LQLQDVHLLQ SVGGGTRRPV LAPCLRGAVL LQSFSRQKPG AHSSRQAYGA SLYEQLVWER QLGLPLYLWA TKALEELACK LCPHVLRHHQ FLQHSSPGSP SLGLQLLAPT LDLLAPPGSP VRNAHNEILE EPHHCPLQKY TRLQTPSSFP TLATLKEEGQ RKAWASFDPK ALLPLPEASY LPSCQLNRRL AWSWLCLLPS AFCPAQVLLG VLVASSHKGC LQLRDQSGSL PCLLLAKHSQ PLSDPRLIGC LVRAERFQLI VERDVRSSFP SWKELSMPGF IQKQQARVYV QFFLADALIL PVPRPCLHSA TPSTPQTDPT

GPEGPHLGQS RLFLLCHKEA LMKRNFCVPP GASPEVPKPA LSFYVLGSWL GGTQRKEGTG WGLPEPQGND DNDQKVHLIF FGSSVRWFEF LHPGQVYRLI APGPATPMLF EKDGSSCISR RPLELAGCAS CLTVQDNWTL ELESSQDIQD VLDANKSLPE SSLTDLLSDN FTDSLVSFSA EILSRTLCEP LVASLWMKLG NTGAMRRCVK LTVALETAEC EFPPHLDVYI EDPHLPPSLG LLPGARVHFS QLEKRVSRSH NVYCCFRSST YVQVLSFPPE TTISIPLPHI YLAELLQGGQ SPFQATASCH IVSVFSLQLF WVCAYCTSIC RQGKCTRLGS TCPTQTAISQ AIIRLLVEDG TAEAVVTCRN HHVAAALGLC PREWASLLDF VQVPGRVVLQ FAGPGAQLES SARVDEPMTM FLWTLCTSPS VLRPIVLSFE LERKPSKIVP LEPPRLQRFQ CGELPFLTHV NPRLRLSCLS IRESEYSSSL GILASSC

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 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 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!

Product Details

	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:	CTC1
Alternative Name:	CTC1 (CTC1 Products)
Background:	CST complex subunit CTC1 (Conserved telomere maintenance component 1) (HBV DNAPTP1-transactivated protein B),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

Target Details

	(PubMed:22763445). 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 (PubMed:25483097). Involved in telomere maintenance (PubMed:19854131, PubMed:22863775). Involved in genome stability (PubMed:22863775). May be in involved in telomeric C-strand fill-in during late S/G2 phase (By similarity). {ECO:0000250|UniProtKB:Q5SUQ9, ECO:0000269|PubMed:19854130, ECO:0000269|PubMed:19854131, ECO:0000269|PubMed:22763445, ECO:0000269|PubMed:22863775, ECO:0000269|PubMed:25483097}.
Molecular Weight:	134.6 kDa
UniProt:	Q2NKJ3

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.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

