Datasheet for ABIN3090785

Cyclin T2 Protein (CCNT2) (AA 1-730) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	Cyclin T2 (CCNT2)
Protein Characteristics:	AA 1-730
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Cyclin T2 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MASGRGASSR WFFTREQLEN TPSRRCGVEA DKELSCRQQA ANLIQEMGQR LNVSQLTINT AIVYMHRFYM HHSFTKFNKN IISSTALFLA AKVEEQARKL EHVIKVAHAC LHPLEPLLDT KCDAYLQQTQ ELVILETIML QTLGFEITIE HPHTDVVKCT QLVRASKDLA QTSYFMATNS LHLTTFCLQY KPTVIACVCI HLACKWSNWE IPVSTDGKHW WEYVDPTVTL ELLDELTHEF LQILEKTPNR LKKIRNWRAN QAARKPKVDG QVSETPLLGS SLVQNSILVD SVTGVPTNPS FQKPSTSAFP APVPLNSGNI SVQDSHTSDN LSMLATGMPS TSYGLSSHQE WPQHQDSART EQLYSQKQET SLSGSQYNIN FQQGPSISLH SGLHHRPDKI SDHSSVKQEY THKAGSSKHH GPISTTPGII PQKMSLDKYR EKRKLETLDL DVRDHYIAAQ VEQQHKQGQS QAASSSSVTS PIKMKIPIAN TEKYMADKKE KSGSLKLRIP IPPTDKSASK EELKMKIKVS SSERHSSSDE GSGKSKHSSP HISRDHKEKH KEHPSSRHHT SSHKHSHSHS GSSSGGSKHS ADGIPPTVLR SPVGLSSDGI SSSSSSSRKR LHVNDASHNH HSKMSKSSKS SGSSSSSSSS VKQYISSHNS

VFNHPLPPPP PVTYQVGYGH LSTLVKLDKK PVETNGPDAN HEYSTSSQHM DYKDTFDMLD SLLSAQGMNM

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®).

Product Details

Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	Cyclin T2 (CCNT2)
Alternative Name:	CCNT2 (CCNT2 Products)
Background:	Cyclin-T2 (CycT2),FUNCTION: Regulatory subunit of the cyclin-dependent kinase pair (CDK9/cyclin T) complex, also called positive transcription elongation factor B (P-TEFB), which is proposed to facilitate the transition from abortive to production elongation by phosphorylating the CTD (carboxy-terminal domain) of the large subunit of RNA polymerase II (RNAP II) (PubMed:9499409, PubMed:15563843). The activity of this complex is regulated by binding with 7SK snRNA (PubMed:11713533). Plays a role during muscle differentiation, P-TEFB complex interacts with MYOD1, this tripartite complex promotes the transcriptional activity of MYOD1 through its CDK9-mediated phosphorylation and binds the chromatin of promoters and enhancers of muscle-specific genes, this event correlates with hyperphosphorylation of the CTD domain of RNA pol II (By similarity). In addition, enhances MYOD1-dependent transcription through interaction with PKN1 (PubMed:16331689). Involved in early embryo development (By similarity). {ECO:0000250|UniProtKB:Q7TQK0, ECO:0000269|PubMed:11713533, ECO:0000269|PubMed:15563843, ECO:0000269|PubMed:16331689, ECO:0000269|PubMed:9499409}., FUNCTION: (Microbial infection) Promotes transcriptional activation of early and late herpes simplex virus 1/HHV-1 promoters. {ECO:0000269|PubMed:21509660}.
Molecular Weight:	81.0 kDa
UniProt:	O60583

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.

Application Details

	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