Datasheet for ABIN3092255

CDT2/RAMP Protein (AA 1-730) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	CDT2/RAMP (DTL)
Protein Characteristics:	AA 1-730
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CDT2/RAMP protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MLFNSVLRQP QLGVLRNGWS SQYPLQSLLT GYQCSGNDEH TSYGETGVPV PPFGCTFSSA PNMEHVLAVA NEEGFVRLYN TESQSFRKKC FKEWMAHWNA VFDLAWVPGE LKLVTAAGDQ TAKFWDVKAG ELIGTCKGHQ CSLKSVAFSK FEKAVFCTGG RDGNIMVWDT RCNKKDGFYR QVNQISGAHN TSDKQTPSKP KKKQNSKGLA PSVDFQQSVT VVLFQDENTL VSAGAVDGII KVWDLRKNYT AYRQEPIASK SFLYPGSSTR KLGYSSLILD STGSTLFANC TDDNIYMFNM TGLKTSPVAI FNGHQNSTFY VKSSLSPDDQ FLVSGSSDEA AYIWKVSTPW QPPTVLLGHS QEVTSVCWCP SDFTKIATCS DDNTLKIWRL NRGLEEKPGG DKLSTVGWAS QKKKESRPGL VTVTSSQSTP AKAPRAKCNP SNSSPSSAAC APSCAGDLPL PSNTPTFSIK TSPAKARSPI NRRGSVSSVS PKPPSSFKMS IRNWVTRTPS SSPPITPPAS ETKIMSPRKA LIPVSQKSSQ AEACSESRNR VKRRLDSSCL ESVKQKCVKS CNCVTELDGQ VENLHLDLCC LAGNQEDLSK DSLGPTKSSK IEGAGTSISE PPSPISPYAS ESCGTLPLPL RPCGEGSEMV GKENSSPENK

NWLLAMAAKR KAENPSPRSP SSQTPNSRRQ SGKKLPSPVT ITPSSMRKIC TYFHRKSQED FCGPEHSTEL

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:	CDT2/RAMP (DTL)
Alternative Name:	DTL (DTL Products)
Background:	Denticleless protein homolog (DDB1- and CUL4-associated factor 2) (Lethal(2) denticleless protein homolog) (Retinoic acid-regulated nuclear matrix-associated protein),FUNCTION: Substrate-specific adapter of a DCX (DDB1-CUL4-X-box) E3 ubiquitin-protein ligase complex required for cell cycle control, DNA damage response and translesion DNA synthesis. The DCX(DTL) complex, also named CRL4(CDT2) complex, mediates the polyubiquitination and subsequent degradation of CDT1, CDKN1A/p21(CIP1), FBH1, KMT5A and SDE2 (PubMed:16861906, PubMed:16949367, PubMed:16964240, PubMed:17085480, PubMed:18703516, PubMed:18794347, PubMed:18794348, PubMed:19332548, PubMed:20129063, PubMed:23478441, PubMed:23478445, PubMed:23677613, PubMed:27906959). CDT1 degradation in response to DNA damage is necessary to ensure proper cell cycle regulation of DNA replication (PubMed:16861906, PubMed:16949367, PubMed:17085480). CDKN1A/p21(CIP1) degradation during S phase or following UV irradiation is essential to control replication licensing (PubMed:18794348, PubMed:19332548). KMT5A degradation is also important for a proper regulation of mechanisms such as TGF-beta signaling, cell cycle progression, DNA repair and cell migration (PubMed:23478445). Most substrates require their interaction with PCNA for their polyubiquitination: substrates interact with PCNA via their PIP-box, and those containing the 'K+4' motif in the PIP box, recruit the DCX(DTL) complex, leading to their degradation. In undamaged proliferating cells, the DCX(DTL) complex also promotes the 'Lys-164' monoubiquitination of PCNA, thereby being involved in PCNA-dependent translesion DNA synthesis (PubMed:20129063, PubMed:23478441, PubMed:23478445, PubMed:23677613). The DDB1-CUL4A-DTL E3 ligase complex regulates the circadian clock function by mediating the ubiquitination and degradation of CRY1 (PubMed:26431207). {ECO:0000269|PubMed:16861906, ECO:0000269|PubMed:16949367, ECO:0000269|PubMed:16964240, ECO:0000269|PubMed:17085480, ECO:0000269|PubMed:18703516, ECO:0000269|PubMed:18794347, ECO:0000269|PubMed:18794348, ECO:0000269|PubMed:19332548, ECO:0000269|PubMed:20129063, ECO:0000269|PubMed:23478441, ECO:0000269|PubMed:23478445,

Target Details

	ECO:0000269|PubMed:23677613, ECO:0000269|PubMed:26431207, ECO:0000269|PubMed:27906959}.
Molecular Weight:	79.5 kDa
UniProt:	Q9NZJ0

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