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Datasheet for ABIN3134980

CDT2/RAMP Protein (AA 1-729) (His tag)

1 Image

Overview

Quantity:	1 mg
Target:	CDT2/RAMP (DTL)
Protein Characteristics:	AA 1-729
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CDT2/RAMP protein is labelled with His tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MLFNSVLRQP QLGVLRNGWS SHYPLQSLLS GYQCNCNDEH TSYGETGVPV PPFGCTFCTA
 PSMEHILAVA NEEGFVRLYN TESQTSKKT C FKEWMAHUNA VFDLAWVPGE LKLVTAAGDQ
 TAKFWDVRAG ELMGTCKGHQ CSLKSVAFPK FQKAVFSTGG RDGNIMIWDT RCNKKDGFYR
 QVNQISGAHN TADKQTPSKP KKKQNSKGLA PAVDSQQSVT VVLFQDENTL VSAGAVDGII
 KVWDLRKNYT AYRQEPIASK SFLYPGTSTR KLGYSLVLD STGSTLFANC TDDNIYMFNM
 TGLKTSPVAV FNGHQNSTFY VKSSLSPDDQ FLISGSSDEA AYIWKVSMWPV HPPTVLLGHS
 QEVTVCWCP SDFTKIATCS DDNTLKIWRL NRGLEEKPGD KHSIVGWTSQ KKKEVKACPV
 TVPSSQSTPA KAPRAKSSPS ISSPSSAACT PSCAGDLPLP SSTPTFSVKT TPATTRSSVS
 RRGSISSVSP KPLSSFKMSL RNWVTRTPSS SPPVTPPASE TKISSPRKAL IPVQKSSQA
 DACSESRNRV KRRLDSSCLE SVKQKCVKSC NCVTELDGQA ESLRLDLCCCL SGTQEVLSQD
 SEGPTKSSKT EGAGTSISEP PSPVSPYASE GCGPLPLPLR PCGEGSEMVG KENSSPENKN
 WLLAIAAKRK AENSSPRSPS SQTSSRRQS GKTSPGPVTI TPSSMRKICT YFRRKTQDDF

CSPEHSTEL

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Dtl Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility:

0.22 µm filtered

Endotoxin Level:

Protein is endotoxin free.

Product Details

Grade: Crystallography grade

Target Details

Target: CDT2/RAMP (DTL)

Alternative Name: Dtl ([DTL Products](#))

Background: 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), FBXO18/FBH1 and KMT5A. CDT1 degradation in response to DNA damage is necessary to ensure proper cell cycle regulation of DNA replication. CDKN1A/p21(CIP1) degradation during S phase or following UV irradiation is essential to control replication licensing. KMT5A degradation is also important for a proper regulation of mechanisms such as TGF-beta signaling, cell cycle progression, DNA repair and cell migration. 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.

{ECO:0000250|UniProtKB:Q9NZJ0}.

Molecular Weight: 80.1 kDa Including tag.

UniProt: [Q3TLR7](#)

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: Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images



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