Datasheet for ABIN3091949

CUX1 Protein (AA 1-1505) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	CUX1
Protein Characteristics:	AA 1-1505
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CUX1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MLCVAGARLK RELDATATVL ANRQDESEQS RKRLIEQSRE FKKNTPEDLR KQVAPLLKSF QGEIDALSKR SKEAEAAFLN VYKRLIDVPD PVPALDLGQQ LQLKVQRLHD IETENQKLRE TLEEYNKEFA EVKNQEVTIK ALKEKIREYE QTLKNQAETI ALEKEQKLQN DFAEKERKLQ ETQMSTTSKL EEAEHKVQSL QTALEKTRTE LFDLKTKYDE ETTAKADEIE MIMTDLERAN QRAEVAQREA ETLREQLSSA NHSLQLASQI QKAPDVEQAI EVLTRSSLEV ELAAKEREIA QLVEDVQRLQ ASLTKLRENS ASQISQLEQQ LSAKNSTLKQ LEEKLKGQAD YEEVKKELNI LKSMEFAPSE GAGTQDAAKP LEVLLLEKNR SLQSENAALR ISNSDLSGSA RRKGKDQPES RRPGSLPAPP PSQLPRNPGE QASNTNGTHQ FSPAGLSQDF FSSSLASPSL PLASTGKFAL NSLLQRQLMQ SFYSKAMQEA GSTSMIFSTG PYSTNSISSQ SPLQQSPDVN GMAPSPSQSE SAGSVSEGEE MDTAEIARQV KEQLIKHNIG QRIFGHYVLG LSQGSVSEIL ARPKPWNKLT VRGKEPFHKM KQFLSDEQNI LALRSIQGRQ RENPGQSLNR LFQEVPKRRN GSEGNITTRI RASETGSDEA IKSILEQAKR ELQVQKTAEP AQPSSASGSG NSDDAIRSIL QQARREMEAQ

QAALDPALKQ APLSQSDITI LTPKLLSTSP MPTVSSYPPL AISLKKPSAA PEAGASALPN PPALKKEAQD APGLDPQGAA DCAQGVLRQV KNEVGRSGAW KDHWWSAVQP ERRNAASSEE AKAEETGGGK EKGSGGSGGG SQPRAERSQL QGPSSSEYWK EWPSAESPYS QSSELSLTGA SRSETPQNSP LPSSPIVPMS KPTKPSVPPL TPEQYEVYMY QEVDTIELTR QVKEKLAKNG ICQRIFGEKV LGLSQGSVSD MLSRPKPWSK LTQKGREPFI RMQLWLNGEL GQGVLPVQGQ QQGPVLHSVT SLQDPLQQGC VSSESTPKTS ASCSPAPESP MSSSESVKSL TELVQQPCPP IEASKDSKPP EPSDPPASDS QPTTPLPLSG HSALSIQELV AMSPELDTYG ITKRVKEVLT DNNLGQRLFG ETILGLTQGS VSDLLARPKP WHKLSLKGRE PFVRMQLWLN DPNNVEKLMD MKRMEKKAYM KRRHSSVSDS QPCEPPSVGT EYSQGASPQP QHQLKKPRVV LAPEEKEALK RAYQQKPYPS PKTIEDLATQ LNLKTSTVIN WFHNYRSRIR RELFIEEIQA GSQGQAGASD SPSARSGRAA PSSEGDSCDG VEATEGPGSA DTEEPKSQGE AEREEVPRPA EQTEPPPSGT PGPDDARDDD HEGGPVEGPG PLPSPASATA TAAPAAPEDA ATSAAAAPGE GPAAPSSAPP PSNSSSSSAP RRPSSLQSLF GLPEAAGARD SRDNPLRKKK AANLNSIIHR LEKAASREEP IEWEF

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

Product Details

	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 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:	CUX1
Alternative Name:	CUX1 (CUX1 Products)
Background:	Homeobox protein cut-like 1 (CCAAT displacement protein) (CDP) (CDP/Cux p200) (Homeobox protein cux-1) [Cleaved into: CDP/Cux p110],FUNCTION: Transcription factor involved in the control of neuronal differentiation in the brain. Regulates dendrite development and branching, and dendritic spine formation in cortical layers II-III. Also involved in the control of synaptogenesis. In addition, it has probably a broad role in mammalian development as a repressor of developmentally regulated gene expression. May act by preventing binding of positively-activing CCAAT factors to promoters. Component of nf-munr repressor, binds to the matrix attachment regions (MARs) (5' and 3') of the immunoglobulin heavy chain enhancer.

Target Details

	Represses T-cell receptor (TCR) beta enhancer function by binding to MARbeta, an ATC-rich DNA sequence located upstream of the TCR beta enhancer. Binds to the TH enhancer, may require the basic helix-loop-helix protein TCF4 as a coactivator. {ECO:0000250|UniProtKB:P53564}., FUNCTION: [CDP/Cux p110]: Plays a role in cell cycle progression, in particular at the G1/S transition. As cells progress into S phase, a fraction of CUX1 Molecules is proteolytically processed into N-terminally truncated proteins of 110 kDa. While CUX1 only transiently binds to DNA and carries the CCAAT-displacement activity, CDP/Cux p110 makes a stable interaction with DNA and stimulates expression of genes such as POLA1. {ECO:0000269|PubMed:15099520}.
Molecular Weight:	164.2 kDa
UniProt:	P39880
Pathways:	Cellular Glucan Metabolic Process

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

Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images

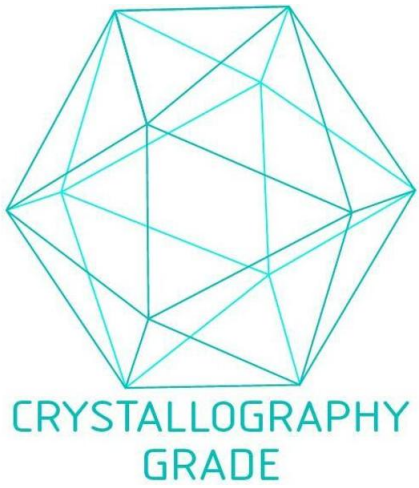

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process