Datasheet for ABIN3091966

CTR9 Protein (AA 1-1173) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	CTR9
Protein Characteristics:	AA 1-1173
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CTR9 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MSRGSIEIPL RDTDEVIELD FDQLPEGDEV ISILKQEHTQ LHIWIALALE YYKQGKTEEF VKLLEAARID GNLDYRDHEK DQMTCLDTLA AYYVQQARKE KNKDNKKDLI TQATLLYTMA DKIIMYDQNH LLGRACFCLL EGDKMDQADA QFHFVLNQSP NNIPALLGKA CISFNKKDYR GALAYYKKAL RTNPGCPAEV RLGMGHCFVK LNKLEKARLA FSRALELNSK CVGALVGLAV LELNNKEADS IKNGVQLLSR AYTIDPSNPM VLNHLANHFF FKKDYSKVQH LALHAFHNTE VEAMQAESCY QLARSFHVQE DYDQAFQYYY QATQFASSSF VLPFFGLGQM YIYRGDKENA SQCFEKVLKA YPNNYETMKI LGSLYAASED QEKRDIAKGH LKKVTEQYPD DVEAWIELAQ ILEQTDIQGA LSAYGTATRI LQEKVQADVP PEILNNVGAL HFRLGNLGEA KKYFLASLDR AKAEAEHDEH YYNAISVTTS YNLARLYEAM CEFHEAEKLY KNILREHPNY VDCYLRLGAM ARDKGNFYEA SDWFKEALQI NQDHPDAWSL IGNLHLAKQE WGPGQKKFER ILKQPSTQSD TYSMLALGNV WLQTLHQPTR DREKEKRHQD RALAIYKQVL RNDAKNLYAA NGIGAVLAHK

GYFREARDVF AQVREATADI SDVWLNLAHI YVEQKQYISA VQMYENCLRK FYKHQNTEVV LYLARALFKC GKLQECKQTL LKARHVAPSD TVLMFNVALV LQRLATSVLK DEKSNLKEVL NAVKELELAH RYFSYLSKVG DKMRFDLALA ATEARQCSDL LSQAQYHVAR ARKQDEEERE LRAKQEQEKE LLRQKLLKEQ EEKRLREKEE QKKLLEQRAQ YVEKTKNILM FTGETEATKE KKRGGGGGRR SKKGGEFDEF VNDDTDDDLP ISKKKKRRKG SGSEQEGEDE EGGERKKKKR RRHPKGEEGS DDDETENGPK PKKRRPPKAE KKKAPKPERL PPSMKGKIKS KAIISSSDDS SDEDKLKIAD EGHPRNSNSN SDSDEDEQRK KCASSESDSD ENQNKSGSEA GSPRRPRRQR SDQDSDSDQP SRKRRPSGSE QSDNESVQSG RSHSGVSEND SRPASPSAES DHESERGSDN EGSGQGSGNE SEPEGSNNEA SDRGSEHGSD DSD

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!

Product Details

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

Target Details

Target:	CTR9
Alternative Name:	CTR9 (CTR9 Products)
Background:	RNA polymerase-associated protein CTR9 homolog (SH2 domain-binding protein 1),FUNCTION: Component of the PAF1 complex (PAF1C) which has multiple functions during transcription by RNA polymerase II and is implicated in regulation of development and maintenance of embryonic stem cell pluripotency. PAF1C associates with RNA polymerase II through interaction with POLR2A CTD non-phosphorylated and 'Ser-2'- and 'Ser-5'-phosphorylated forms and is involved in transcriptional elongation, acting both independently and synergistically with TCEA1 and in cooperation with the DSIF complex and HTATSF1. PAF1C is required for transcription of Hox and Wnt target genes. PAF1C is involved in hematopoiesis and stimulates transcriptional activity of KMT2A/MLL1, it promotes leukemogenesis through association with KMT2A/MLL1-rearranged oncoproteins, such as KMT2A/MLL1-MLLT3/AF9 and KMT2A/MLL1-MLLT1/ENL. PAF1C is involved in histone modifications such as ubiquitination of histone H2B and methylation on histone H3 'Lys-4' (H3K4me3). PAF1C recruits the RNF20/40 E3 ubiquitin-protein ligase complex and the E2 enzyme UBE2A or UBE2B to chromatin which mediate monoubiquitination of 'Lys-120' of histone H2B (H2BK120ub1), UB2A/B-mediated H2B ubiquitination is proposed to be coupled to transcription. PAF1C is involved in mRNA 3' end formation probably through association with cleavage and poly(A) factors. In case of infection by influenza A strain H3N2, PAF1C associates with viral NS1 protein, thereby regulating gene transcription. Required for mono- and trimethylation on histone H3 'Lys-4' (H3K4me3) and dimethylation on histone H3 'Lys-79' (H3K4me3). Required for Hox gene transcription. Required for the trimethylation of histone H3 'Lys-4' (H3K4me3) on genes involved in stem cell pluripotency, this function is synergistic with CXXC1 indicative for an involvement of the SET1

Target Details

	complex. Involved in transcriptional regulation of IL6-responsive genes and in JAK-STAT pathway, may regulate DNA-association of STAT3 (By similarity). {ECO:0000250|UniProtKB:Q62018, ECO:0000269|PubMed:16024656, ECO:0000269|PubMed:16307923, ECO:0000269|PubMed:19345177, ECO:0000269|PubMed:19952111, ECO:0000269|PubMed:20178742, ECO:0000269|PubMed:20541477, ECO:0000269|PubMed:21329879}.
Molecular Weight:	133.5 kDa
UniProt:	Q6PD62
Pathways:	Cellular Response to Molecule of Bacterial Origin, Stem Cell Maintenance

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

Handling

Storage Comment:	Store at -80°C.
Expiry Date:	12 months