Datasheet for ABIN3091966

CTR9 Protein (AA 1-1173) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	CTR9
Protein Characteristics:	AA 1-1173
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CTR9 protein is labelled with His tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

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. 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. • Human CTR9 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 receival 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.

Product Details

	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.
Grade:	Crystallography grade

Target Details

Target:	CTR9
Alternative Name:	CTR9 (CTR9 Products)
Background:	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 indepentently 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 complex. Involved in transcriptional regulation of IL6-responsive genes and in JAK-STAT pathway, may regulate DNA-association of STAT3 (By similarity). {ECO:0000250,

Target Details

	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:	134.5 kDa Including tag.
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 gurantee though.
Comment:	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)

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