Datasheet for ABIN7553593

CTCF Protein (AA 1-727) (His tag)

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Overview

Quantity:	1 mg
Target:	CTCF
Protein Characteristics:	AA 1-727
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CTCF protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant CTCF Protein expressed in mammalian cells.
Sequence:	MEGDAVEAIV EESETFIKGK ERKTYQRRRE GGQEEDACHL PQNQTDGGEV VQDVNSSVQM VMMEQLDPTL LQMKTEVMEG TVAPEAEAAV DDTQIITLQV VNMEEQPINI GELQLVQVPV PVTVPVATTS VEELQGAYEN EVSKEGLAES EPMICHTLPL PEGFQVVKVG ANGEVETLEQ GELPPQEDPS WQKDPDYQPP AKKTKKTKKS KLRYTEEGKD VDVSVYDFEE EQQEGLLSEV NAEKVVGNMK PPKPTKIKKK GVKKTFQCEL CSYTCPRRSN LDRHMKSHTD ERPHKCHLCG RAFRTVTLLR NHLNTHTGTR PHKCPDCDMA FVTSGELVRH RRYKHTHEKP FKCSMCDYAS VEVSKLKRHI RSHTGERPFQ CSLCSYASRD TYKLKRHMRT HSGEKPYECY ICHARFTQSG TMKMHILQKH TENVAKFHCP HCDTVIARKS DLGVHLRKQH SYIEQGKKCR YCDAVFHERY ALIQHQKSHK NEKRFKCDQC DYACRQERHM IMHKRTHTGE KPYACSHCDK TFRQKQLLDM HFKRYHDPNF VPAAFVCSKC GKTFTRRNTM ARHADNCAGP DGVEGENGGE TKKSKRGRKR KMRSKKEDSS DSENAEPDLD DNEDEEEPAV EIEPEPEPQP VTPAPPPAKK RRGRPPGRTN QPKQNQPTAI IQVEDQNTGA IENIIVEVKK EPDAEPAEGE EEEAQPAATD APNGDLTPEM

Product Details

	ILSMMDR **Sequence without tag. The proposed Purification-Tag is based on experiences 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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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. If you are not interested in a full length protein, please contact us for individual protein fragments. 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.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	CTCF
Alternative Name:	CTCF (CTCF Products)
Background:	Transcriptional repressor CTCF (11-zinc finger protein) (CCCTC-binding factor) (CTCFL paralog),FUNCTION: Chromatin binding factor that binds to DNA sequence specific sites and regulates the 3D structure of chromatin (PubMed:18347100, PubMed:18654629, PubMed:19322193). Binds together strands of DNA, thus forming chromatin loops, and anchors DNA to cellular structures, such as the nuclear lamina (PubMed:18347100, PubMed:18654629, PubMed:19322193). Defines the boundaries between active and heterochromatic DNA via binding to chromatin insulators, thereby preventing interaction between promoter and nearby enhancers and silencers (PubMed:18347100,

PubMed:18654629, PubMed:19322193). Plays a critical role in the epigenetic regulation (PubMed:16949368). Participates in the allele-specific gene expression at the imprinted IGF2/H19 gene locus (PubMed:16107875, PubMed:16815976, PubMed:17827499). On the maternal allele, binding within the H19 imprinting control region (ICR) mediates maternally inherited higher-order chromatin conformation to restrict enhancer access to IGF2 (By similarity). Mediates interchromosomal association between IGF2/H19 and WSB1/NF1 and may direct distant DNA segments to a common transcription factory (By similarity). Regulates asynchronous replication of IGF2/H19 (By similarity). Plays a critical role in gene silencing over considerable distances in the genome (By similarity). Preferentially interacts with unmethylated DNA, preventing spreading of CpG methylation and maintaining methylation-free zones (PubMed:18413740). Inversely, binding to target sites is prevented by CpG methylation (PubMed:18413740). Plays an important role in chromatin remodeling (PubMed:18413740). Can dimerize when it is bound to different DNA sequences, mediating long-range chromatin looping (PubMed:12191639). Causes local loss of histone acetylation and gain of histone methylation in the beta-globin locus, without affecting transcription (PubMed:12191639). When bound to chromatin, it provides an anchor point for nucleosomes positioning (PubMed:12191639). Seems to be essential for homologous X-chromosome pairing (By similarity). May participate with Tsix in establishing a regulatable epigenetic switch for X chromosome inactivation (PubMed:11743158). May play a role in preventing the propagation of stable methylation at the escape genes from X-inactivation (PubMed:11743158). Involved in sister chromatid cohesion (PubMed:12191639). Associates with both centromeres and chromosomal arms during metaphase and required for cohesin localization to CTCF sites (PubMed:18550811). Plays a role in the recruitment of CENPE to the pericentromeric/centromeric regions of the chromosome during mitosis (PubMed:26321640). Acts as a transcriptional repressor binding to promoters of vertebrate MYC gene and BAG1 gene (PubMed:8649389, PubMed:9591631, PubMed:18413740). Also binds to the PLK and PIM1 promoters (PubMed:12191639). Acts as a transcriptional activator of APP (PubMed:9407128). Regulates APOA1/C3/A4/A5 gene cluster and controls MHC class II gene expression (PubMed:18347100, PubMed:19322193). Plays an essential role in oocyte and preimplantation embryo development by activating or repressing transcription (By similarity). Seems to act as tumor suppressor (PubMed:12191639). {ECO:0000250|UniProtKB:Q61164, ECO:0000269|PubMed:11743158, ECO:0000269|PubMed:16107875, ECO:0000269|PubMed:16815976, ECO:0000269|PubMed:16949368, ECO:0000269|PubMed:17827499, ECO:0000269|PubMed:18347100, ECO:0000269|PubMed:18413740, ECO:0000269|PubMed:18550811, ECO:0000269|PubMed:18654629, ECO:0000269|PubMed:19322193,

Target Details

	ECO:0000269|PubMed:26321640, ECO:0000269|PubMed:8649389, ECO:0000269|PubMed:9407128, ECO:0000269|PubMed:9591631, ECO:0000303|PubMed:12191639}.
Molecular Weight:	82.8 kDa
UniProt:	P49711

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition 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:	12 months