

Datasheet for ABIN7553342
CDYL Protein (AA 1-598) (His tag)



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Overview

Quantity:	1 mg
Target:	CDYL
Protein Characteristics:	AA 1-598
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CDYL protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat CDYL Protein expressed in mammalian cells.
Sequence:	<p>MTFQASHRSA WGKSRKKNWQ YEGPTQKLFL KRNNVSAPDG PSDPSISVSS EQSGAQQPPA</p> <p>LQVERIVDKR KNKKGKTEYL VRWKGYSDES DTWEPEQLHV NCEEYIHDFN RRHTEKQKES</p> <p>TLTRTNRTSP NNARKQISRS TSNFSKTSP KALVIGKDHE SKNSQLFAAS QKFRKNTAPS</p> <p>LSSRKNDMLA KSGIKILVPK SPVKSRTAVD GFQSESPEKL DPVEQQQEDT VAPEVAAEKP</p> <p>VGALLGPGAE RARMGSRPRI HPLVPQVPGP VTAAMATGLA VNGKGTSPFM DALTANGTTN</p> <p>IQTSVTGVTA SKRKFIIDRR DQPFDKRLRF SVRQTESAYR YRDIIVVRKQD GFTHILLSTK</p> <p>SSENNSLNPE VMREVQSALS TAAADDSKLV LLSAVGSVFC CGLDFIYFIR RLTDNRKRES</p> <p>TKMAEAIKRF VNTFIQFKKP IIVAVNGPAI GLGASILPLC DVVWANEKAW FQTPYTTFGQ</p> <p>SPDGCSTVMF PKIMGGASAN EMLLSGRKLT AQEACGKGLV SQVFWPGTFT QEVMVRIKEL</p> <p>ASCNPVVLEE SKALVRCNMK MELEQANERE CEVLKKIWGS AQGMDSMLKY LQRKIDEF</p> <p>Sequence without tag. The proposed Purification-Tag is based on experiences with the</p>

expression system, a different complexity of the protein could make another tag necessary.
In case you have a special request, please contact us.

Characteristics:	<p>Key Benefits:</p> <ul style="list-style-type: none">• 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). <p>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.</p> <p>If you are not interested in a full length protein, please contact us for individual protein fragments.</p> <p>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.</p>
Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	CDYL
Alternative Name:	CDYL (CDYL Products)
Background:	<p>Chromodomain Y-like protein (CDY-like) (Crotonyl-CoA hydratase) (EC 4.2.1.-),FUNCTION: [Isoform 2]: Chromatin reader protein that recognizes and binds histone H3 trimethylated at 'Lys-9', dimethylated at 'Lys-27' and trimethylated at 'Lys-27' (H3K9me3, H3K27me2 and H3K27me3, respectively) (PubMed:19808672, PubMed:28402439). Part of multimeric repressive chromatin complexes, where it is required for transmission and restoration of repressive histone marks, thereby preserving the epigenetic landscape (PubMed:28402439). Required for chromatin targeting and maximal enzymatic activity of Polycomb repressive complex 2 (PRC2), acts as a positive regulator of PRC2 activity by bridging the pre-existing histone H3K27me3 and newly recruited PRC2 on neighboring nucleosomes (PubMed:22009739). Acts as a corepressor for REST by facilitating histone-lysine N-methyltransferase EHMT2 recruitment and H3K9 dimethylation at REST target genes for</p>

Target Details

repression (PubMed:19061646). Involved in X chromosome inactivation in females: recruited to Xist RNA-coated X chromosome and facilitates propagation of H3K9me2 by anchoring EHMT2 (By similarity). Promotes EZH2 accumulation and H3K27me3 methylation at DNA double strand breaks (DSBs), thereby facilitating transcriptional repression at sites of DNA damage and homology-directed repair of DSBs (PubMed:29177481). Required for neuronal migration during brain development by repressing expression of RHOA (By similarity). By repressing the expression of SCN8A, contributes to the inhibition of intrinsic neuronal excitability and epileptogenesis (By similarity). In addition to acting as a chromatin reader, acts as a hydro-lyase (PubMed:28803779). Shows crotonyl-coA hydratase activity by mediating the conversion of crotonyl-CoA ((2E)-butenoyl-CoA) to beta-hydroxybutyryl-CoA (3-hydroxybutanoyl-CoA), thereby acting as a negative regulator of histone crotonylation (PubMed:28803779). Histone crotonylation is required during spermatogenesis, down-regulation of histone crotonylation by CDYL regulates the reactivation of sex chromosome-linked genes in round spermatids and histone replacement in elongating spermatids (By similarity). By regulating histone crotonylation and trimethylation of H3K27, may be involved in stress-induced depression-like behaviors, possibly by regulating VGF expression (By similarity).

{ECO:0000250|UniProtKB:Q9WTK2, ECO:0000269|PubMed:19061646, ECO:0000269|PubMed:19808672, ECO:0000269|PubMed:22009739, ECO:0000269|PubMed:28402439, ECO:0000269|PubMed:28803779, ECO:0000269|PubMed:29177481}., FUNCTION: [Isoform 1]: Not able to recognize and bind histone H3K9me3, histone H3K27me2 and histone H3K27me3, due to the presence of a N-terminal extension that inactivates the chromo domain (PubMed:19808672).

{ECO:0000269|PubMed:19808672}., FUNCTION: [Isoform 3]: Not able to recognize and bind histone H3K9me3, histone H3K27me2 and histone H3K27me3, due to the absence of the chromo domain (PubMed:19808672). Acts as a negative regulator of isoform 2 by displacing isoform 2 from chromatin. {ECO:0000269|PubMed:19808672}.

Molecular Weight:	66.5 kDa
UniProt:	Q9Y232

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.
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