Datasheet for ABIN7560680

DNMT3L Protein (AA 1-421) (His tag)

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Overview

Quantity:	1 mg
Target:	DNMT3L (TRDMT1)
Protein Characteristics:	AA 1-421
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DNMT3L protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Dnmt3l Protein expressed in mammalian cells.
Sequence:	MGSRETPSSC SKTLETLDLE TSDSSSPDAD SPLEEQWLKS SPALKEDSVD VVLEDCKEPL SPSSPPTGRE MIRYEVKVNR RSIEDICLCC GTLQVYTRHP LFEGGLCAPC KDKFLESLFL YDDDGHQSYC TICCSGGTLF ICESPDCTRC YCFECVDILV GPGTSERINA MACWVCFLCL PFSRSGLLQR RKRWRHQLKA FHDQEGAGPM EIYKTVSAWK RQPVRVLSLF RNIDKVLKSL GFLESGSGSG GGTLKYVEDV TNVVRRDVEK WGPFDLVYGS TQPLGSSCDR CPGWYMFQFH RILQYALPRQ ESQRPFFWIF MDNLLLTEDD QETTTRFLQT EAVTLQDVRG RDYQNAMRVW SNIPGLKSKH APLTPKEEEY LQAQVRSRSK LDAPKVDLLV KNCLLPLREY FKYFSQNSLP L **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.

Product Details

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:	DNMT3L (TRDMT1)
Alternative Name:	Dnmt3l (TRDMT1 Products)
Background:	DNA (cytosine-5)-methyltransferase 3-like,FUNCTION: Catalytically inactive regulatory factor of DNA methyltransferases that can either promote or inhibit DNA methylation depending on the context (PubMed:11719692, PubMed:15318244, PubMed:15671018, PubMed:24074865). Essential for the function of DNMT3A and DNMT3B: activates DNMT3A and DNMT3B by binding to their catalytic domain (PubMed:15671018). Acts by accelerating the binding of DNA and S-adenosyl-L-methionine (AdoMet) to the methyltransferases and dissociates from the complex after DNA binding to the methyltransferases (PubMed:15671018). Recognizes unmethylated histone H3 lysine 4 (H3K4me0) and induces de novo DNA methylation by recruitment or activation of DNMT3 (By similarity). Plays a key role in embryonic stem cells and germ cells (PubMed:11719692, PubMed:15318244, PubMed:24074865). In germ cells, required for the methylation of imprinted loci together with DNMT3A (PubMed:11719692). In male germ cells, specifically required to methylate retrotransposons, preventing their mobilization (PubMed:15318244). Plays a key role in embryonic stem cells (ESCs) by acting both as an

Target Details

	positive and negative regulator of DNA methylation (PubMed:24074865). While it promotes DNA methylation of housekeeping genes together with DNMT3A and DNMT3B, it also acts as an inhibitor of DNA methylation at the promoter of bivalent genes (PubMed:24074865). Interacts with the EZH2 component of the PRC2/EED-EZH2 complex, preventing interaction of DNMT3A and DNMT3B with the PRC2/EED-EZH2 complex, leading to maintain low methylation levels at the promoters of bivalent genes (PubMed:24074865). Promotes differentiation of ESCs into primordial germ cells by inhibiting DNA methylation at the promoter of RHOX5, thereby activating its expression (PubMed:24074865). {ECO:0000250|UniProtKB:Q9UJW3, ECO:0000269|PubMed:11719692, ECO:0000269|PubMed:15318244, ECO:0000269|PubMed:15671018, ECO:0000269|PubMed:24074865}.
Molecular Weight:	48.0 kDa
UniProt:	Q9CWR8

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

