

Datasheet for ABIN3092130
DNMT1 Protein (AA 1-1616) (Strep Tag)[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	DNMT1
Protein Characteristics:	AA 1-1616
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DNMT1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MPARTAPARV PTLAVPAISL PDDVRRRLKD LERDSLTEKE CVKEKLNLLH EFLQTEIKNQ LCDLETKLRK EELSEEGYLA KVKSLNNDL SLENGAHAYN REVNGRLENG NQARSEARRV GMADANSPPK PLSKPRTPRR SKSDGEAKPE PSPSPRITRK STRQTTITSH FAKGPAKRKP QEESERAKSD ESIKEEDKDQ DEKRRRVTSR ERVARPLPAE EPERAKSGTR TEKEEERDEK EEKRLRSQTK EPTPKQKLKE EPDREARAGV QADEDGDE KDEKKHRSQP KDLAAKRRPE EKEPEKVNQ ISDEKDEDEK EEKRRKTPK EPTEKKMARA KTMNSKTHP PKCIQCGQYL DDPDLKYGQH PPDAVDEPQM LTNEKLSIFD ANESGFESYE ALPQHKLTCF SVYCKHGHLC PIDTGLIEKN IELFFSGSAK PIYDDPSLE GGVNGKNLGP INEWWITGFD GGEKALIGFS TSFAEYILMD PSPEYAPIFG LMQEKIYISK IVVEFLQSNS DSTYEDLINK IETTVPPSGL NLNRFTEDSL LRHAQFVVEQ VESYDEAGDS DEQPIFLTPC MRDLIKLAGV TLGQRRARAR RQTIRHSTRE KDRGPTKATT TKLVYQIFDT FFAEQIEKDD REDKENAFKR RRCGVCEVCQ QPEGKCKAC KDMVKFGGSG RSKQACQERR CPNMAMKEAD DDEEVDDNIP EMPSPKKMHQ
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GKKKKQNKNR ISWVGEAVKT DGKKSYYKKV CIDAETLEVG DCVSVIPDDS SKPLYLARVT
ALWEDSSNGQ MFHAHWFCAG TDTVLGATSD PLELFLVDEC EDMQLSYIHS KVKVIYKAPS
ENWAMEGGMD PESLLEGDDG KTYFYQLWYD QDYARFESPP KTQPTEDNKF KFCVSCARLA
EMRQKEIPRV LEQLEDLSR VLYYSATKNG ILYRVGDGVY LPPEAFTFNI KLSSPVKRPR
KEPVDEDLYP EHYRKYSYDI KGSNLDAPEP YRIGRIKEIF CPKKSNGRPN ETDIKIRVNK
FYRPENTHKS TPASYHADIN LLYWSDEEAV VDFKAVQGRC TVEYGEDLPE CVQVYSMGGP
NRFYFLEAYN AKSKSFEDPP NHARSPGNKG KGKGKGKGKP KSQACEPSEP EIEIKLPKLR
TLDVFSGCCG LSEGFHQAGI SCTLWAIEMW DPAAQAFRLN NPGSTVFTED CNILLKLVMA
GETTNSRGQR LPQKGDVEML CGGPPCQGFS GMNRFNSRTY SKFKNSLVVS FLSYCDYYRP
RFFLLENVRN FVSFKRSMVL KLTLRCLVRM GYQCTFGVLQ AGQYGVAQTR RRAILAAAP
GEKLPLFPEP LHVFAPRACQ LSVVVDDKKF VSNITRLSSG PFRTITVRDT MSDLPEVRNG
ASALEISYNG EPQSWFQRQL RGAQYQPILR DHICKDMSAL VAARMRHIPL APGSDWRDLP
NIEVRLSDGT MARKLRYTHH DRKNGRSSSG ALRGVCSCVE AGKACDPAAR QFNTLIPWCL
PHTGNRHNHW AGLYGRLEWD GFFSTTVTNP EPMGKQGRVL HPEQHRVSV RECARSQGFP
DTYRLFGNIL DKHRQVGNAV PPPLAKAIGL EIKLCMLAKA RESASAKIKE EEAAKD

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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 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.

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!

Concentration:

- 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.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE. 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:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	DNMT1
Alternative Name:	DNMT1 (DNMT1 Products)
Background:	DNA (cytosine-5)-methyltransferase 1 (Dnmt1) (EC 2.1.1.37) (CXXC-type zinc finger protein 9) (DNA methyltransferase Hsa1) (DNA MTase Hsa1) (M.Hsa1) (MCMT),FUNCTION: Methylates CpG residues. Preferentially methylates hemimethylated DNA. Associates with DNA replication sites in S phase maintaining the methylation pattern in the newly synthesized strand, that is essential for epigenetic inheritance. Associates with chromatin during G2 and M phases to maintain DNA methylation independently of replication. It is responsible for maintaining methylation patterns established in development. DNA methylation is coordinated with

Target Details

methylation of histones. Mediates transcriptional repression by direct binding to HDAC2. In association with DNMT3B and via the recruitment of CTCFL/BORIS, involved in activation of BAG1 gene expression by modulating dimethylation of promoter histone H3 at H3K4 and H3K9. Probably forms a corepressor complex required for activated KRAS-mediated promoter hypermethylation and transcriptional silencing of tumor suppressor genes (TSGs) or other tumor-related genes in colorectal cancer (CRC) cells (PubMed:24623306). Also required to maintain a transcriptionally repressive state of genes in undifferentiated embryonic stem cells (ESCs) (PubMed:24623306). Associates at promoter regions of tumor suppressor genes (TSGs) leading to their gene silencing (PubMed:24623306). Promotes tumor growth (PubMed:24623306). {ECO:0000269|PubMed:16357870, ECO:0000269|PubMed:18413740, ECO:0000269|PubMed:18754681, ECO:0000269|PubMed:24623306}.

Molecular Weight:	183.2 kDa
UniProt:	P26358
Pathways:	SARS-CoV-2 Protein Interactome , The Global Phosphorylation Landscape of SARS-CoV-2 Infection

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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images



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