Datasheet for ABIN3132960

DNMT1 Protein (AA 1-1620) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	DNMT1
Protein Characteristics:	AA 1-1620
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DNMT1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	MPARTAPARV PALASPAGSL PDHVRRRLKD LERDGLTEKE CVREKLNLLH EFLQTEIKSQ LCDLETKLHK EELSEEGYLA KVKSLLNKDL SLENGTHTLT QKANGCPANG SRPTWRAEMA DSNRSPRSRP KPRGPRRSKS DSDTLSVETS PSSVATRRTT RQTTITAHFT KGPTKRKPKE ESEEGNSAES AAEERDQDKK RRVVDTESGA AAAVEKLEEV TAGTQLGPEE PCEQEDDNRS LRRHTRELSL RRKSKEDPDR EARPETHLDE DEDGKKDKRS SRPRSQPRDP AAKRRPKEAE PEQVAPETPE DRDEDEREEK RRKTTRKKLE SHTVPVQSRS ERKAAQSKSV IPKINSPKCP ECGQHLDDPN LKYQQHPEDA VDEPQMLTSE KLSIYDSTST WFDTYEDSPM HRFTSFSVYC SRGHLCPVDT GLIEKNVELY FSGCAKAIHD ENPSMEGGIN GKNLGPINQW WLSGFDGGEK VLIGFSTAFA EYILMEPSKE YEPIFGLMQE KIYISKIVVE FLQNNPDAVY EDLINKIETT VPPSTINVNR FTEDSLLRHA QFVVSQVESY DEAKDDDETP IFLSPCMRAL IHLAGVSLGQ RRATRRVMGA TKEKDKAPTK ATTTKLVYQI FDTFFSEQIE KYDKEDKENA MKRRRCGVCE VCQQPECGKC KACKDMVKFG GTGRSKQACL KRRCPNLAVK EADDDEEADD DVSEMPSPKK LHQGKKKKQN

KDRISWLGQP MKIEENRTYY QKVSIDEEML EVGDCVSVIP DDSSKPLYLA RVTALWEDKN GQMMFHAHWF CAGTDTVLGA TSDPLELFLV GECENMQLSY IHSKVKVIYK APSENWAMEG GTDPETTLPG AEDGKTYFFQ LWYNQEYARF ESPPKTQPTE DNKHKFCLSC IRLAELRQKE MPKVLEQIEE VDGRVYCSSI TKNGVVYRLG DSVYLPPEAF TFNIKVASPV KRPKKDPVNE TLYPEHYRKY SDYIKGSNLD APEPYRIGRI KEIHCGKKKG KVNEADIKLR LYKFYRPENT HRSYNGSYHT DINMLYWSDE EAVVNFSDVQ GRCTVEYGED LLESIQDYSQ GGPDRFYFLE AYNSKTKNFE DPPNHARSPG NKGKGKGKGK GKGKHQVSEP KEPEAAIKLP KLRTLDVFSG CGGLSEGFHQ AGISETLWAI EMWDPAAQAF RLNNPGTTVF TEDCNVLLKL VMAGEVTNSL GQRLPQKGDV EMLCGGPPCQ GFSGMNRFNS RTYSKFKNSL VVSFLSYCDY YRPRFFLLEN VRNFVSYRRS MVLKLTLRCL VRMGYQCTFG VLQAGQYGVA QTRRRAIILA AAPGEKLPLF PEPLHVFAPR ACQLSVVVDD KKFVSNITRL SSGPFRTITV RDTMSDLPEI QNGASNSEIP YNGEPLSWFQ RQLRGSHYQP ILRDHICKDM SPLVAARMRH IPLFPGSDWR DLPNIQVRLG DGVIAHKLQY TFHDVKNGYS STGALRGVCS CAEGKACDPE SRQFSTLIPW CLPHTGNRHN HWAGLYGRLE WDGFFSTTVT NPEPMGKQGR VLHPEQHRVV SVRECARSQG FPDSYRFFGN ILDRHRQVGN AVPPPLAKAI GLEIKLCLLS SARESASAAV KAKEEAATKD

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.
- Mouse Dnmt1 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

Product Details

	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. 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:	DNMT1
Alternative Name:	Dnmt1 (DNMT1 Products)
Background:	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 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 (By similarity). Also required to maintain a transcriptionally repressive state of genes in undifferentiated embryonic stem cells (ESCs) (By similarity). Associates at promoter regions of tumor suppressor genes (TSGs) leading to their gene silencing (By similarity). Promotes tumor growth (By similarity). {ECO:0000250|UniProtKB:P26358, ECO:0000269|PubMed:11290321,

Target Details

	ECO:0000269|PubMed:15550930, ECO:0000269|PubMed:17576694}.
Molecular Weight:	184.1 kDa Including tag.
UniProt:	P13864
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 gurantee though.
Comment:	Protein has not been tested for activity yet. 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)

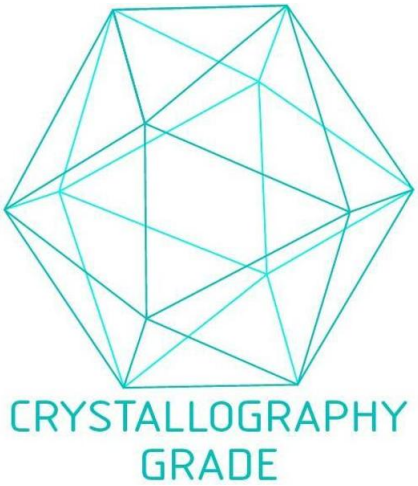

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process