Datasheet for ABIN7562865

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

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## Overview

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| Quantity: | 1 mg |
| Target: | DNMT1 |
| Protein Characteristics: | AA 1-1620 |
| Origin: | Mouse |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This DNMT1 protein is labelled with His tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS) |

## Product Details

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| Purpose: | Custom-made recombinat Dnmt1 Protein expressed in mammalien cells. |
| 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 |

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| | 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. 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.** |
| Characteristics: | Key Benefits:<br>• Made to order protein - from design to production - by highly experienced protein experts.<br>• Protein expressed in mammalien cells and purified in one-step affinity chromatography<br>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>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.<br><br>If you are not interested in a full length protein, please contact us for individual protein fragments.<br><br>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, Western Blot |

## Product Details

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| Grade: | custom-made |

## Target Details

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| Target: | DNMT1 |
| Alternative Name: | Dnmt1 (DNMT1 Products) |
| Background: | DNA (cytosine-5)-methyltransferase 1 (Dnmt1) (Met-1) (EC 2.1.1.37) (DNA methyltransferase MmuI) (DNA MTase MmuI) (M.MmuI) (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 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, ECO:0000269\|PubMed:15550930, ECO:0000269\|PubMed:17576694}. |
| Molecular Weight: | 183.2 kDa |
| UniProt: | P13864 |
| Pathways: | SARS-CoV-2 Protein Interactome, The Global Phosphorylation Landscape of SARS-CoV-2 Infection |

## Application Details

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| 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

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| 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 |