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Datasheet for ABIN3092129

DNMT3A Protein (AA 1-912) (Strep Tag)

1 Image

Overview

Quantity:	1 mg
Target:	DNMT3A
Protein Characteristics:	AA 1-912
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DNMT3A protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence: MPAMPSSGPG DTSSSAARE EDRKDGEEQE EPRGKEERQE PSTTARKVGR PGRKRKHPPV
ESGDTPKDPA VISKSPSMAQ DSGASELLPN GDLEKRSEPEE PEEGSPAGGQ KGGAPAELEG
AAETLPEASR AVENGCTPK EGRGAPAEAG KEQKETNIES MKMEGSRGRL RGGLGWESSL
RQRPMPLTF QAGDPYYISK RKRDEWLARW KREAEEKKAV IAGMNAVEEN QGPGESQKVE
EASPPAVQQP TDPASPTVAT TPEPVGSDAG DKNATKAGDD EPEYEDGRGF GIGELVWGKL
RGFSWWPGRI VSWWMTGRSR AAEGTRWVMW FGDGKFSVVC VEKLMPLSSF CSAFHQATYN
KQPMYRKAIY EVLQVASSRA GKLFPVCHDS DESDTAKAVE VQNKPMIEWA LGGFQPSGPK
GLEPPEEEKN PYKEYTDMW VEPEAAAYAP PPPAKKPRKS TAEKPKVKEI IDERTRERLV
YEVRQKCRNI EDICISCGSL NVTLEHPLFV GCMCQNCKNC FLECAQYQDD DGYQSYCTIC
CGGREVLMCG NNNCCRCFCV ECVDLLVGP AAQAIEDP WNCYMCGHKG TYGLLRRED
WPSRLQMFFA NNHDQEFDPP KVYPPVPAEK RKPIRVLSLF DGIATGLLVL KDLGIQVDRY
IASEVCEDSI TVGMVRHQGK IMYVGDVRSV TQKHIQEWGP FDLVIGGSPC NDLSIVNPAR

KGLYEGTGRL FFEFYRLLHD ARPKEGDDRP FFWLFENVVA MGVSDKRDIS RFLESNPVMI
DAKEVSAHR ARYFWGNLPG MNRPLASTVN DKLELQECLE HGRIAKFSKV RTITTRSNSI
KQKGDQHFPV FMNEKEDILW CTEMERVFGF PVHYTDVSNM SRLARQRLG RSWSVPVIRH
LFAPLKEYFA CV

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.

Product Details

- 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®): <ol style="list-style-type: none">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:	DNMT3A
Alternative Name:	DNMT3A (DNMT3A Products)
Background:	<p>DNA (cytosine-5)-methyltransferase 3A (Dnmt3a) (EC 2.1.1.37) (Cysteine methyltransferase DNMT3A) (EC 2.1.1.-) (DNA methyltransferase HsaIIIA) (DNA MTase HsaIIIA) (M.HsaIIIA),FUNCTION: Required for genome-wide de novo methylation and is essential for the establishment of DNA methylation patterns during development (PubMed:12138111, PubMed:16357870, PubMed:30478443). DNA methylation is coordinated with methylation of histones (PubMed:12138111, PubMed:16357870, PubMed:30478443). It modifies DNA in a non-processive manner and also methylates non-CpG sites (PubMed:12138111, PubMed:16357870, PubMed:30478443). May preferentially methylate DNA linker between 2 nucleosomal cores and is inhibited by histone H1 (By similarity). Plays a role in paternal and maternal imprinting (By similarity). Required for methylation of most imprinted loci in germ cells (By similarity). Acts as a transcriptional corepressor for ZBTB18 (By similarity). Recruited to trimethylated 'Lys-36' of histone H3 (H3K36me3) sites (By similarity). Can actively repress transcription through the recruitment of HDAC activity (By similarity). Also has weak auto-methylation activity on Cys-710 in absence of DNA (By similarity).</p> <p>{ECO:0000250 UniProtKB:O88508, ECO:0000269 PubMed:12138111, ECO:0000269 PubMed:16357870, ECO:0000269 PubMed:30478443}.</p>
Molecular Weight:	101.9 kDa

Target Details

UniProt: [Q9Y6K1](#)

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: 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!

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)



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