Datasheet for ABIN3132280

SETDB1 Protein (AA 1-1307) (His tag)

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1 Image

Overview

Quantity:	1 mg
Target:	SETDB1
Protein Characteristics:	AA 1-1307
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SETDB1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	MSSLPGCMSL AAAPAAADSA EIAELQQAVV EELGISMEEL RQYIDEELEK MDCIQQRKKQ LAELETWVLQ KESEVAYVDR LFDDASREVT NCESLVKDFY SKLGLQYHDS SSEDEASRPT EIIEIPDEDD DVLSIDSGDA GSRTPKDQKL REAMAALRKS AQDVQKFMDA VNKKSSSQDL HKGTLGQVSG ELSKDGDLIV SMRILGKKRT KTWHKGTLIA IQTVGLGKKY KVKFDNKGKS LLSGNHIAYD YHPPADKLFV GSRVVAKYKD GNQVWLYAGI VAETPNVKNK LRFLIFFDDG YASYVTQSEL YPICRPLKKT WEDIEDSSCR DFIEEYITAY PNRPMVLLKS GQLIKTEWEG TWWKSRVEEV DGSLVRILFL DDKRCEWIYR GSTRLEPMFS MKTSSASAME KKQGGQLRTR PNMGAVRSKG PVVQYTQDLT GTGIQFKPME PLQPIAPPAP LPIPPLSPQA ADTDLESQLA QSRKQVAKKS TSFRPGSVGS GHSSPTSSTL SENVSAGKLG INQTYRSPLA SVTSTPASAA PPVPPVPPGP PTPPGPPAPP GPLAPPAFHG MLERAPAEPS YRAPMEKLFY LPHVCSYTCL SRIRPMRNEQ YRGKNPLLVP LLYDFRRMTA RRRVNRKMGF HVIYKTPCGL CLRTMQEIER YLFETGCDFL FLEMFCLDPY VLVDRKFQPF KPFYYILDIT YGKEDVPLSC VNEIDTTPPP

QVAYSKERIP GKGVFINTGP EFLVGCDCKD GCRDKSKCAC HQLTIQATAC TPGGQVNPNS GYQYKRLEEC LPTGVYECNK RCNCDPNMCT NRLVQHGLQV RLQLFKTQNK GWGIRCLDDI AKGSFVCIYA GKILTDDFAD KEGLEMGDEY FANLDHIESV ENFKEGYESD VPTSSDSSGV DMKDQEDGNS GSEDPEESND DSSDDNFCKD EDFSTSSVWR SYATRRQTRG QKENELSEMT SKDSRPPDLG PPHVPIPSSV SVGGCNPPSS EETPKNKVAS WLSCNSVSEG GFADSDSRSS FKTSEGGDGR AGGGRGEAER ASTSGLSFKD EGDNKQPKKE DPENRNKMPV VTEGSQNHGH NPPMKSEGLR RPASKMSVLQ SQRVVTSTQS NPDDILTLSS STESEGESGT SRKPTAGHTS ATAVDSDDIQ TISSGSDGDD FEDKKNLSGP TKRQVAVKST RGFALKSTHG IAIKSTNMAS VDKGESAPVR KNTRQFYDGE ESCYIIDAKL EGNLGRYLNH SCSPNLFVQN VFVDTHDLRF PWVAFFASKR IRAGTELTWD YNYEVGSVEG KELLCCCGAI ECRGRLL

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 Setdb1 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 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

Product Details

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:	SETDB1
Alternative Name:	Setdb1 (SETDB1 Products)
Background:	Histone methyltransferase that specifically trimethylates 'Lys-9' of histone H3. H3 'Lys-9' trimethylation represents a specific tag for epigenetic transcriptional repression by recruiting HP1 (CBX1, CBX3 and/or CBX5) proteins to methylated histones. Mainly functions in euchromatin regions, thereby playing a central role in the silencing of euchromatic genes. H3 'Lys-9' trimethylation is coordinated with DNA methylation. Probably forms a complex with MBD1 and ATF7IP that represses transcription and couples DNA methylation and histone 'Lys-9' trimethylation. Its activity is dependent on MBD1 and is heritably maintained through DNA replication by being recruited by CAF-1. SETDB1 is targeted to histone H3 by TRIM28/TIF1B, a factor recruited by KRAB zinc-finger proteins. 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. The SETDB1-TRIM28-ZNF274 complex may play a role in recruiting ATRX to the 3'-exons of zinc-finger coding genes with atypical chromatin signatures to establish or maintain/protect H3K9me3 at these transcriptionally active regions (By similarity). {ECO:0000250|UniProtKB:Q15047}.
Molecular Weight:	145.5 kDa Including tag.
UniProt:	O88974

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)

Images

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