Datasheet for ABIN3132280

SETDB1 Protein (AA 1-1307) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	SETDB1
Protein Characteristics:	AA 1-1307
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SETDB1 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
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. 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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 -

Product Details

	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 against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	SETDB1
Alternative Name:	Setdb1 (SETDB1 Products)
Background:	Histone-lysine N-methyltransferase SETDB1 (EC 2.1.1.366) (ERG-associated protein with SET domain) (ESET) (SET domain bifurcated 1),FUNCTION: Histone methyltransferase that specifically trimethylates 'Lys-9' of histone H3 (PubMed:11791185, PubMed:22939622). 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). Required to maintain a transcriptionally repressive state of genes in undifferentiated embryonic stem cells (ESCs) (By similarity). In ESCs, in collaboration with TRIM28, is also required for H3K9me3 and silencing of endogenous and introduced retroviruses in a DNA-methylation independent-pathway (PubMed:20164836, PubMed:29728365). Associates at promoter regions of tumor suppressor genes (TSGs) leading to their gene silencing. The

Target Details

	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, ECO:0000269|PubMed:11791185, ECO:0000269|PubMed:20164836, ECO:0000269|PubMed:22939622, ECO:0000269|PubMed:29728365}.
Molecular Weight:	144.5 kDa
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 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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.

Handling

Expiry Date:	12 months