Datasheet for ABIN7555454

SETDB1 Protein (AA 1-1291) (His tag)

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Overview

Quantity:	1 mg
Target:	SETDB1
Protein Characteristics:	AA 1-1291
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SETDB1 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant SETDB1 Protein expressed in mammalian cells.
Sequence:	MSSLPGCIGL DAATATVESE EIAELQQAVV EELGISMEEL RHFIDEELEK MDCVQQRKKQ LAELETWVIQ KESEVAHVDQ LFDDASRAVT NCESLVKDFY SKLGLQYRDS SSEDESSRPT EIIEIPDEDD DVLSIDSGDA GSRTPKDQKL REAMAALRKS AQDVQKFMDA VNKKSSSQDL HKGTLSQMSG ELSKDGDLIV SMRILGKKRT KTWHKGTLIA IQTVGPGKKY KVKFDNKGKS LLSGNHIAYD YHPPADKLYV GSRVVAKYKD GNQVWLYAGI VAETPNVKNK LRFLIFFDDG YASYVTQSEL YPICRPLKKT WEDIEDISCR DFIEEYVTAY PNRPMVLLKS GQLIKTEWEG TWWKSRVEEV DGSLVRILFL DDKRCEWIYR GSTRLEPMFS MKTSSASALE KKQGQLRTRP NMGAVRSKGP VVQYTQDLTG TGTQFKPVEP PQPTAPPAPP FPPAPPLSPQ AGDSDLESQL AQSRKQVAKK STSFRPGSVG SGHSSPTSPA LSENVSGGKP GINQTYRSPL GSTASAPAPS ALPAPPAPPV FHGMLERAPA EPSYRAPMEK LFYLPHVCSY TCLSRVRPMR NEQYRGKNPL LVPLLYDFRR MTARRRVNRK MGFHVIYKTP CGLCLRTMQE IERYLFETGC DFLFLEMFCL DPYVLVDRKF QPYKPFYYIL DITYGKEDVP LSCVNEIDTT PPPQVAYSKE RIPGKGVFIN

	TGPEFLVGCD CKDGCRDKSK CACHQLTIQA TACTPGGQIN PNSGYQYKRL EECLPTGVYE CNKRCKCDPN MCTNRLVQHG LQVRLQLFKT QNKGWGIRCL DDIAKGSFVC IYAGKILTDD FADKEGLEMG DEYFANLDHI ESVENFKEGY ESDAPCSSDS SGVDLKDQED GNSGTEDPEE SNDDSSDDNF CKDEDFSTSS VWRSYATRRQ TRGQKENGLS ETTSKDSHPP DLGPPHIPVP PSIPVGGCNP PSSEETPKNK VASWLSCNSV SEGGFADSDS HSSFKTNEGG EGRAGGSRME AEKASTSGLG IKDEGDIKQA KKEDTDDRNK MSVVTESSRN YGYNPSPVKP EGLRRPPSKT SMHQSRRLMA SAQSNPDDVL TLSSSTESEG ESGTSRKPTA GQTSATAVDS DDIQTISSGS EGDDFEDKKN MTGPMKRQVA VKSTRGFALK STHGIAIKST NMASVDKGES APVRKNTRQF YDGEESCYII DAKLEGNLGR YLNHSCSPNL FVQNVFVDTH DLRFPWVAFF ASKRIRAGTE LTWDYNYEVG SVEGKELLCC CGAIECRGRL L **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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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. If you are not interested in a full length protein, please contact us for individual protein fragments. 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, anti-tag ELISA, 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) (Histone H3-K9 methyltransferase 4) (H3-K9-HMTase 4) (Lysine N-methyltransferase 1E) (SET domain bifurcated 1),FUNCTION: 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 (PubMed:12869583). Required for HUSH-mediated heterochromatin formation and gene silencing. Forms a complex with MBD1 and ATF7IP that represses transcription and couples DNA methylation and histone 'Lys-9' trimethylation (PubMed:27732843, PubMed:14536086). Its activity is dependent on MBD1 and is heritably maintained through DNA replication by being recruited by CAF-1 (PubMed:14536086). 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 (PubMed:24623306). Required to maintain a transcriptionally repressive state of genes in undifferentiated embryonic stem cells (ESCs) (PubMed:24623306). In ESCs, in collaboration with TRIM28, is also required for H3K9me3 and silencing of endogenous and introduced retroviruses in a DNA-methylation independent-pathway (By similarity). Associates at promoter regions of tumor suppressor genes (TSGs) leading to their gene silencing (PubMed:24623306). 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 (PubMed:27029610). {ECO:0000250|UniProtKB:O88974, ECO:0000269|PubMed:12869583, ECO:0000269|PubMed:14536086, ECO:0000269|PubMed:24623306, ECO:0000269|PubMed:27029610, ECO:0000269|PubMed:27732843}.
Molecular Weight:	143.2 kDa
UniProt:	Q15047

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for

Application Details

	functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

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