Recombinant Human SETDB1 Protein (1-397 aa), GST-tagged

Cat. No. SETDB1-2120H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SETDB1 Protein (1-397 aa) is produced by E. coli expression system. This protein is fused with a GST tag at the N-terminal. Research Area: Epigenetics and Nuclear Signaling. Protein Description: Full Length of Isoform 2.
Species	Human
Source	E.coli
ProteinLength	1-397 aa
Description	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. Also required to maintain a transcriptionally repressive state of genes in undifferentiated embryonic stem cells (ESCs). Associates at promoter regions of

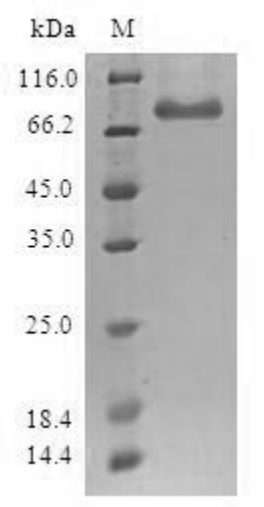
Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	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.
Form	Tris-based buffer,50% glycerol
Molecular Mass	71.7 kDa
AA Sequence	MSSLPGCIGLDAATATVESEEIAELQQAVVEELGISMEELRHFIDEELEKMDCVQQRK KQLAELETWVIQKESEVAHVDQLFDDASRAVTNCESLVKDFYSKLGLQYRDSSSED ESSRPTEIIEIPDEDDDVLSIDSGDAGSRTPKDQKLREAMAALRKSAQDVQKFMDAV NKKSSSQDLHKGTLSQMSGELSKDGDLIVSMRILGKKRTKTWHKGTLIAIQTVGPGK KYKVKFDNKGKSLLSGNHIAYDYHPPADKLYVGSRVVAKYKDGNQVWLYAGIVAET PNVKNKLRFLIFFDDGYASYVTQSELYPICRPLKKTWEDIEDISCRDFIEEYVTAYPNR PMVLLKSGQLIKTEWEGTWWKSRVEEVDGSLVRILFLVLFFSTILEAEVGGGGT
Purity	> 90% as determined by SDS-PAGE.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.
Concentration	A hardcopy of COA will be sent along with the products. Please refer to it for detailed information.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

GENE INFORMATION

Gene Name	SETDB1 SET domain, bifurcated 1 [Homo sapiens]
Official Symbol	SETDB1
Synonyms	SETDB1; ESET; KG1T; KIAA0067; KMT1E; H3-K9-HMTase 4; H3-K9-HMTase4;
Gene ID	9869
mRNA Refseq	NM_001145415
Protein Refseq	NP_001138887
MIM	604396
UniProt ID	Q15047



Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA