

Active Recombinant Human SETDB1, FLAG-tagged

Cat. No. SETDB1-70H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SETDB1 (accession number NP_001138887.1) was expressed in Sf9 cells and contains an N-terminal FLAG tag with an observed molecular weight of 145 kDa.
Species	Human
Source	Sf9 Cells
ProteinLength	1-1291 aa
Description	SETDB1 (SET Domain, Bifurcated 1) is a histone methyltransferase that methylates histone H3 at lysine 9. H3K9 methylation is associated with transcriptional repression and gene silencing through recruitment of HP1 proteins to methylated histones. H3K9 trimethylation is coordinated with DNA methylation, most likely through formation of a complex with MBD1 and ATF7IP that leads to transcriptional repression. SETDB1 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, a factor recruited by KRAB zinc-finger proteins. Aberrant SETDB1 function is associated with the pathogenesis of Huntington Disease.
Form	25 mM HEPES, pH 7.5, 150 mM NaCl and 5% glycerol.
Bio-activity	H3K9me3 methyltransferase.
Applications	Enzyme kinetics, inhibitor screening, and selectivity profiling.

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Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage.
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Concentration	1 mg/ml
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GENE INFORMATION

Gene Name	SETDB1 SET domain, bifurcated 1 [Homo sapiens]
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Official Symbol	SETDB1
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Synonyms	SETDB1; SET domain, bifurcated 1; histone-lysine N-methyltransferase SETDB1; ESET; KG1T; KIAA0067; KMT1E; H3-K9-HMTase 4; lysine N-methyltransferase 1E; histone H3-K9 methyltransferase 4; ERG-associated protein with SET domain; ERG-associated protein with a SET domain, ESET; histone-lysine N-methyltransferase, H3lysine-9 specific 4; H3-K9-HMTase4;
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Gene ID	9869
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mRNA Refseq	NM_001145415
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Protein Refseq	NP_001138887
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MIM	604396
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UniProt ID	Q15047
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Chromosome Location	1q21
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Pathway	Lysine degradation, organism-specific biosystem; Lysine degradation, conserved biosystem; Noncanonical Wnt signaling pathway, organism-specific biosystem;
Function	DNA binding; histone-lysine N-methyltransferase activity; methyltransferase activity; protein binding; transferase activity; zinc ion binding;

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