

# Recombinant Human SET Domain-Containing Protein 7

**Cat. No.** SETD7-89H    **Lot. No.** (See product label)

## SPECIFICATION

**Product Overview**      Recombinant human SETD7 protein was expressed in E.coli and purified by using conventional chromatography techniques, 40.7 kDa (366 aa).

**Species**                      Human

**Source**                        E.coli

**Description**                Set 7/9 is a histone methyltransferase(HMTase) that transfers methyl groups to Lys4 of histone H3, in complex with S-adenosyl-L-methionine(AdoMet). The methylation of lysine residues of histones plays a critical role in the regulation of chromatin structure and gene expression. Acetylation, phosphorylation and methylation of the amino-terminal tails of histone are thought to be involved in the regulation of chromatin structure and function. The enzymes identified in the methylation of specific lysine residue on histones belong to the SET family with just one exception. Set7/9, unlike most other SET proteins, is exclusively a mono-methylase.

**Sequences of amino acids**

MDSDDMVEE AVEGHLDDDG LPHGFCTVTY SSTDRFEGNF VHGEKNGRGK  
 FFFFDGSTLE GYYVDDALQG QGVYTYEDGG VLQGTYYVDGE LNGPAQEYDT  
 DGRILIFKGQY KDNIRHGVCW IYYPDGGSLV GEVNEDGEMT GEKIAYVYPD  
 ERTALYGKFI DGEMIEGKLA TLMSTEEGRP HFELMPGNSV YHFDKSTSSC  
 ISTNALLPDP YESERVYVAE SLISSAGEGL FSKVAVGPNT VMSFYNGVRI  
 THQEVDSDRW ALNGNTLSLD EETVIDVPEP YNHVSKYCAS LGHKANHSFT  
 PNCIYDMFVH PRFGPIKCIR TLRAVEADEE LTVAYGYDHS PPGKSGPEAP  
 EWYQVELKAF QATQQK

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<b>Formulation</b>	Liquid. In 50 mM Tris-HCl buffer (pH 7.5) containing 5 mM DTT, 200 mM NaCl, 20% glycerol
<b>Purity</b>	> 95% by SDS - PAGE
<b>Concentration</b>	1 mg/ml (determined by Bradford assay)
<b>Storage</b>	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.


## GENE INFORMATION

<b>Gene Name</b>	SETD7 SET domain containing (lysine methyltransferase) 7 [ Homo sapiens ]
<b>Synonyms</b>	SETD7; SET7; FLJ21193; KIAA1717; KMT7; SET7/9; SET9; EC 2.1.1.43; Set9; H3-K4-HMTase; H3-K4-HMTase SETD7; H3 lysine-4 specific SET7; Histone-lysine N-methyltransferase; Histone H3-K4 methyltransferase; histone H3-lysine 4-specific methyltransferase; SET domain-containing protein 7; Histone H3-K4 methyltransferase SETD7; Lysine N-methyltransferase 7; SET domain containing (lysine methyltransferase) 7; histone H3-K4 methyltransferase; histone-lysine N-methyltransferase; protein methylase III; protein methylase 3; protein (lysine) methyltransferase; protein methyltransferase II; protein-lysine N-methyltransferase; histone H1-specific S-adenosylmethionine:protein-lysine N-methyltransferase; S-adenosyl-L-methionine:histone-L-lysine N6-methyltransferase
<b>Gene ID</b>	80854
<b>mRNA Refseq</b>	NM_030648
<b>Protein Refseq</b>	NP_085151

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<b>MIM</b>	606594
<b>UniProt ID</b>	Q8WTS6
<b>Chromosome Location</b>	4q28
<b>Pathway</b>	Lysine degradation
<b>Function</b>	histone-lysine N-methyltransferase activity; methyltransferase activity; protein binding; transferase activity
<b>PDBrendering based on 1h3i. Available structures:1h3i,1mt6,1m</b>	

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