

# Recombinant human SETD7 protein

Catalog Number: SET3001

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-366aa

### UniProt No.

Q8WTS6

### NCBI Accession No.

NP\_085151

### Alternative Names

SETD7, SET7, SET9, SET7/9, SET7/9 Histone methyltransferase, SET domain-containing protein 8, SET domain-containing protein 7 FLJ21193, SET domain-containing protein 7, Lysine N-methyltransferase 7, Lysine methyltransferase, KMT7, KIAA1717, Histone-lysine N-methyltransferase SETD7, Histone-lysine N-methyltransferase, Histone lysine N methyltransferase H3 lysine 4 specific SET7, Histone lysine methyltransferase, Histone H4-K4 methyltransferase, Histone H3-K4 methyltransferase SETD7, Histone H3 lysine 4 specific methyltransferase, Histone H3 K4 methyltransferase, H4 lysine-4 specific, H3-K4-HMTase SETD7, H3 K4 HMTase, EC 2.1.1.43

## PRODUCT SPECIFICATION

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### Molecular Weight

40.7 kDa (366aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 50mM Tris-HCl buffer (pH 7.5) containing 0.2M NaCl, 5mM DTT, 20%glycerol

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Tag

Non-Tagged

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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## BACKGROUND

### 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. SET 7/9, unlike most other SET proteins, is exclusively a mono-methylase, Recombinant human SET7/9, was cloned into an E. coli expression vector and was purified to apparent homogeneity by using conventional column chromatography techniques.

### Amino acid Sequence

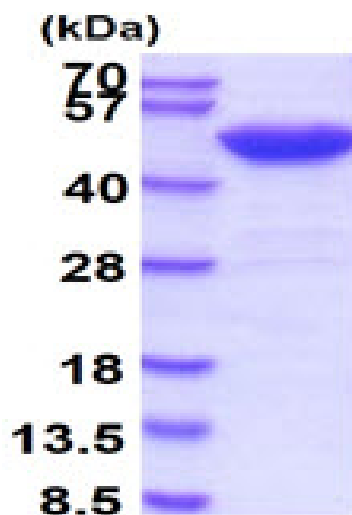
MDSDDDEMVEE AVEGHLDDDDG LPHGFCTVTY SSTDRFEGNF VHGEKNGRGK FFFFDGSTLE GYYVDDALQG  
QGYYTYEDGG VLQGTYYVDGE LNGPAQEYDT DGRLIFKGQY KDNIRHGVCW IYYPDGGSLV GEVNEDGEMT GEKIAYVYPD  
ERTALYGKFI DGEMIEGKLA TLMSTEEGRP HFELMPGNSV YHFDKSTSSC ISTNALLPDP YESERVYVAE SLISSAGEGL  
FSKVAVGPNT VMSFYNGVRI THQEVDSRDW ALNGNTLSLD EETVIDVPEP YNHVSKYCAS LGHKANHSFT PNCIYDMFVH  
PRFGPIKCIR TLRAVEADEE LTVAYGYDHS PPGKSGPEAP EWYQVELKAF QATQQK

### General References

Xiao B., et al. (2003) Nature. 421(6923):652-6.  
Kwon T., et al. (2003) EMBO J. 22, 292-303.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

10% SDS-PAGE (3ug)