

SETD7 recombinant protein

Recombinant SETD7 protein

CATALOG # AAA59717	HOST Baculovirus
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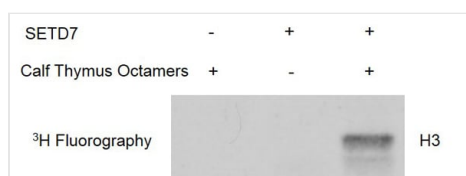
PRODUCT SYNONYMS

SETD7; Recombinant SETD7 protein; KMT7; SET7; SET9; SET7/9; SETD7 recombinant protein

PRODUCT SPECIFICATIONS

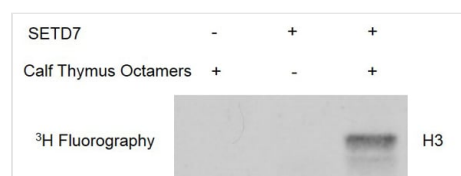
Host	Baculovirus
Purity/Purification	The recombinant protein is >80% pure by SDS-PAGE.
Form/Format	Full length recombinant SETD7 protein was expressed in Sf9 cells and is supplied in 25mM Hepes pH7.5, 300mM NaCl, 5% Glycerol, 0.04% Triton X-100, 0.2mM TCEP.
Protein Species	Human
Tag	DYKDDDDK-Tag
Notes	Recombinant SETD7 is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. HMT Assay Conditions: 1uM H3K4me0 (1-21aa) peptide was incubated with different concentrations of recombinant SETD7 protein in reaction buffer containing 50mM TrisCl pH 8.6, 0.02% Triton X-100, 2mM MgCl2, 1mM TCEP, 100uM SAM for 2 hours at room temperature. Activity was detected by HTRF and Fluorography.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



Application Data

Recombinant SETD7 protein activity assay. 2 ug Calf Thymus Octamers was incubated with 0.5 ug SETD7 protein in reaction buffer containing radioactive 3H-SAM for 2 hour at room temperature. Activity was detected by fluorography.



Application Data

Recombinant SETD7 protein HTRF activity assay. 1 ?M H3K4me0 (1-21aa) peptide was incubated with SETD7 in reaction buffer for 2 hour at room temperature. SETD7 enzyme was used in a HTRF assay to determine enzyme linearity. Methylated peptide (H3K4me1) was measured using H3K4me1-specific antibody.



SDS-PAGE

Recombinant SETD7 protein gel. SETD7 protein was run on an 8% SDS-PAGE gel and stained with Coomassie blue.

ADDITIONAL INFORMATION

Related Product Information for SETD7 recombinant protein	Short Description: Recombinant SETD7 protein (accession number NP_085151.1) was expressed in Sf9 cells and contains an N-terminal DYKDDDDK-Tag with a molecular weight of 41.7 kDa. The recombinant protein is >80% pure by SDS-PAGE. It is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Background: SETD7 (SET Domain Containing (Lysine Methyltransferase) 7) is a histone methyltransferase that specifically monomethylates 'Lys-4' of histone H3. H3 'Lys-4' methylation represents a specific tag for epigenetic transcriptional activation. Plays a central role in the transcriptional activation of genes such as collagenase or insulin. Recruited by IPF1/PDX-1 to the insulin promoter, leading to activate transcription. Has also methyltransferase activity toward non-histone proteins such as p53/TP53, TAF10, and possibly TAF7 by recognizing and binding the [KR]-[STA]-K in substrate proteins. Monomethylates 'Lys-189' of TAF10, leading to increase the affinity of TAF10 for RNA polymerase II. Monomethylates 'Lys-372' of p53/TP53, stabilizing p53/TP53 and increasing p53/TP53-mediated transcriptional activation.
Product Categories/Family for SETD7 recombinant protein	Recombinant Proteins; Histone Methyltransferase (HMT)

NCBI AND UNIPROT INFORMATION

NCBI GI #	83035135
NCBI GeneID	80854
NCBI Accession #	NP_085151.1
NCBI GenBank Nucleotide #	NM_030648
Molecular Weight	40,721 Da
NCBI Official Full Name	Homo sapiens SET domain containing (lysine methyltransferase) 7 (SETD7), mRNA
NCBI Official Synonym Full Names	SET domain containing (lysine methyltransferase) 7
NCBI Official Symbol	SETD7
NCBI Official Synonym Symbols	KMT7; SET7; SET9; SET7/9
NCBI Protein Information	histone-lysine N-methyltransferase SETD7; H3-K4-HMTase SETD7; SET domain-containing protein 7; histone H3-K4 methyltransferase SETD7; histone H3-lysine 4-specific methyltransferase; lysine N-methyltransferase 7

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.