

Recombinant Human SETD3 Protein, His-tagged

Cat. No. SETD3-01H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human SETD3 protein (2-594) with a N-terminal His-tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	2-594
Description	SET domain protein 3 (SETD3) is an actin histidine methyltransferase encoded by the SETD3 gene in humans and a member of the SET family of methyltransferases. It contains an N-terminal SET domain, responsible for transferring a methyl group from S-adenosyl methionine to histidine 73 on β-actin, that forms a cleft with a C-terminal domain that is similar to large subunit methyltransferase (LSMT) domains. SETD3 is ubiquitously expressed and localizes to the cytoplasm. SETD3 expression in liver cancer cell lines increases proliferation while shRNA knockdown decreases it. Expression of SETD3 increases tumor size in a HepG2 mouse xenograft model, and a xenograft model using cancer cells with an endogenous knockdown of SETD3 reduces tumor size. SETD3 protein levels are increased in isolated human cancer tissues compared with adjacent tissue. Setd3 knockout in mice leads to skeletal muscle myopathy, abnormal cardiac electrocardiogram, and, in female mice, delayed parturition.
Form	50 mM HEPES, pH 8.0, with 150 mM sodium chloride and 10% glycerol

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Molecular Mass	69.2 kDa
Purity	≥80% estimated by SDS-PAGE
Unit Definition	nmol/min/mg. One unit is defined as the amount of enzyme required to transfer one methyl group to actin peptide per minute using 8 M actin peptide (LKYPIEHGIVTNWDDMEKIW-amide) at 37 centigrade in our Methyltransferase Colorimetric Assay Kit.
Applications	WB, ELISA, Enzymatic Assay
Stability	≥ 1 year
Storage	Store at -80 centigrade

GENE INFORMATION

Gene Name	SETD3 SET domain containing 3, actin histidine methyltransferase [Homo sapiens (human)]
Official Symbol	SETD3
Synonyms	SETD3; SET domain containing 3, actin histidine methyltransferase; hSETD3; C14orf154; actin-histidine N-methyltransferase; SET domain containing 3; SET domain-containing protein 3; histone-lysine N-methyltransferase setd3
Gene ID	84193
mRNA Refseq	NM_032233
Protein Refseq	NP_115609

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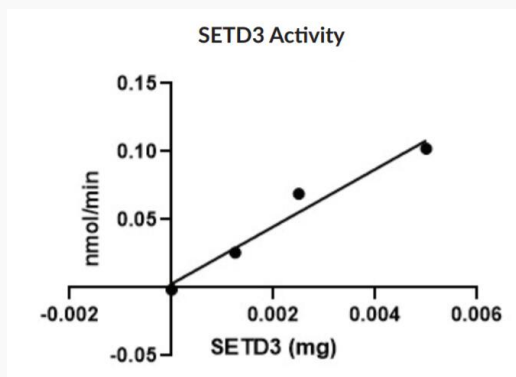
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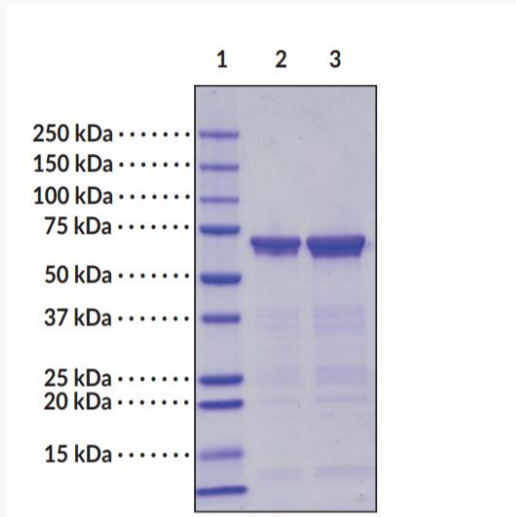
UniProt ID Q86TU7

Activity Assay



SETD3 activity was determined using our Methyltransferase Colorimetric Assay Kit.

SDS-PAGE Analysis of SETD3



Lane 1: MW Markers, Lane 2: SETD3 (2 g), Lane 3: SETD3 (4 g), Figure 1: SDS-PAGE Analysis of SETD3: Representative gel image shown; actual purity may vary

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between each batch.

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