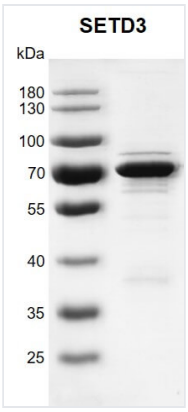
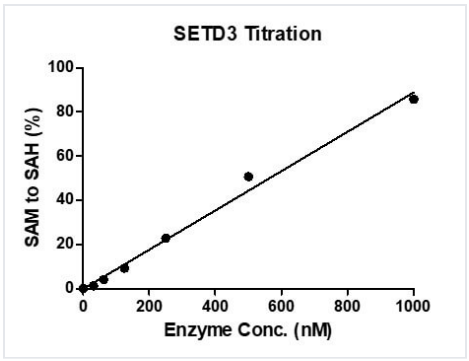
SETD3 Recombinant Protein

PRODUCT OVERVIEW

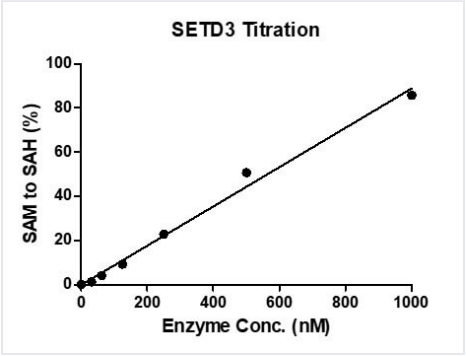
Product Name	SETD3, Recombinant Protein
Full Product Name	Recombinant SETD3 protein
Product Gene Name	SETD3 recombinant protein
Product Synonym Names	SET Domain Containing 3; Actin Histidine Methyltransferase; C14orf154; EC 2.1.1.85
Host	Baculovirus
Form/Format	Recombinant SETD3 protein is supplied in 25mM HEPES-NaOH pH7.5, 300mM NaCl, 10% glycerol, 0.04% Triton X-100, and 0.5mM TCEP.
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
Molecular Weight	32,540 Da
OMIM	615671
3D Structure	ModBase 3D Structure for Q86TU7
Protein Species	Human
Tag	DYKDDDDK-Tag
Notes	Recombinant SETD3 protein is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.
Dry Ice Shipment	Extra charge fee may add to your shipping cost as dry ice is required to ship this product.
Product Categories/Family for SETD3 recombinant protein	Recombinant Proteins; Histone Methyltransferase (HMT); Transcription
Related Product Information for SETD3 recombinant protein	Short Description: Full-length human SETD3 protein (accession number NP_115609.2 was expressed in a baculovirus expression system and contains an N-terminal DYKDDDDK-Tag. The molecular weight of SETD3 is 68.5 kDa. Recombinant SETD3 protein is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Background: SETD3 (SET Domain Containing 3, Actin Histidine Methyltransferase), is a protein-histidine N-methyltransferase that specifically mediates methylation of actin at 'His-73'. Histidine methylation of actin is required for smooth muscle contraction of the laboring uterus during delivery. According to researches, SETD3 does not have proteinlysine N-methyltransferase activity and probably only catalyzes histidine methylation of actin.
Other Notes	Small volumes of SETD3 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SETD3 purchase	MBS389328 is a recombinant protein targeting SETD3. Also known as Recombinant SETD3 protein. Host: Baculovirus.



SDS-Page of SETD3 recombinant protein
Recombinant SETD3 protein gel 10% SDS-PAGE Coomassie staining MW: 68.5 kDa Purity: >90%



Testing Data of SETD3 recombinant protein
MTase-Glo Assay for Recombinant SETD3 protein methyltransferase activity 1 uM beta-actin peptide (66-TLKYPIEHGIVTNWD-80) and 1 uM SAM were incubated with different concentrations of recombinant SETD3 protein in an 8 ul reaction system containing 50 mM Tris-HCl pH 8.6, 0.02% Triton X-100, 2 mM MgCl2, 1 mM TCEP for 1 hr. 5×MTase-Glo Reagent was added to the products and incubated for 30 min. Then MTase-Glo Detection was added and luminescence were read after another 30 min incubation. SAH standard curve (0-1 uM) was performed following the same protocol.



Testing Data of SETD3 recombinant protein
MTase-Glo Assay for Recombinant SETD3 protein methyltransferase activity 1 uM beta-actin peptide (66-TLKYPIEHGIVTNWD-80) and 1 uM SAM were incubated with different concentrations of recombinant SETD3 protein in an 8 ul reaction system containing 50 mM Tris-HCl pH 8.6, 0.02% Triton X-100, 2 mM MgCl2, 1 mM TCEP for 1 hr. 5×MTase-Glo Reagent was added to the products and incubated for 30 min. Then MTase-Glo Detection was added and luminescence were read after another 30 min incubation. SAH standard curve (0-1 uM) was performed following the same protocol.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SETD3. It may not necessarily be applicable to this product.

NCBI GI #	40068481
NCBI GeneID	84193
NCBI Accession #	NP_115609.2
UniProt Primary Accession #	Q86TU7
UniProt Secondary Accession #	Q0VAQ2; Q659C0; Q86TU8; Q96GY9; Q9H5U5; A0PJU3; A5PLP0; B4DZE8
UniProt Related Accession #	Q86TU7
GenBank Nucleotide #	NM_032233.2
NCBI Official Full Name	histone-lysine N-methyltransferase setd3 isoform a
NCBI Official Synonym Full Names	SET domain containing 3
NCBI Official Symbol	SETD3
NCBI Official Synonym Symbols	C14orf154

UniProt Protein Name	Histone-lysine N-methyltransferase setd3
UniProt Synonym Protein Names	SET domain-containing protein 3
Protein Family	Histone-lysine N-methyltransferase
UniProt Gene Name	SETD3
UniProt Synonym Gene Names	C14orf154
UniProt Entry Name	SETD3_HUMAN
NCBI Protein Information	histone-lysine N-methyltransferase setd3
UniProt Comments for SETD3	SETD3: Histone methyltransferase that methylates 'Lys-36' of histone H3 (H3K36me). H3 'Lys-36' methylation represents a specific tag for epigenetic transcriptional activation. Belongs to the SETD3 family. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Methyltransferase; EC 2.1.1.43; Methyltransferase, protein lysine Chromosomal Location of Human Ortholog: 14q32.2 Cellular Component: nuclear chromatin Molecular Function: histone lysine N-methyltransferase activity (H3-K4 specific); transcription coactivator activity; histone lysine N-methyltransferase activity (H3-K36 specific) Biological Process: transcription, DNA-dependent; peptidyl-lysine di-methylation; positive regulation of transcription, DNA-dependent; peptidyl-lysine tri-methylation; histone H3-K4 methylation; peptidyl-lysine mono-methylation; positive regulation of muscle cell differentiation; histone H3-K36 methylation; positive regulation of transcription from RNA polymerase II promoter
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