

KMT2A recombinant protein

Recombinant KMT2A (MLL1)-SET protein

CATALOG #
AAA59670

HOST
E Coli

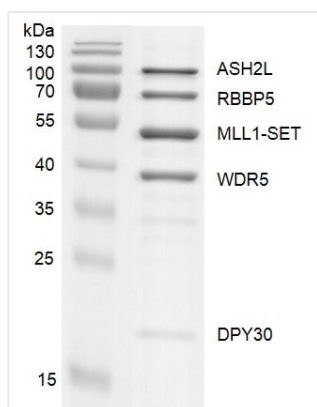
PRODUCT SYNONYMS

KMT2A; Recombinant KMT2A (MLL1)-SET protein; HRX; MLL1; TRX1; ALL-1; CXXC7; HTRX1; MLL1A; WDSTS; MLL-AF9; MLL/GAS7; TET1-MLL; KMT2A recombinant protein

PRODUCT SPECIFICATIONS

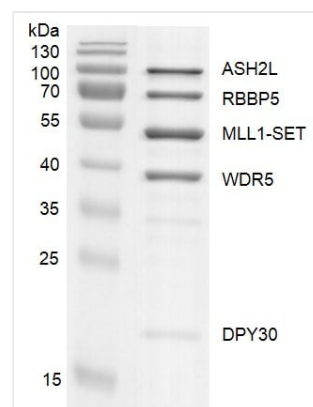
Host	E Coli
Purity/Purification	The recombinant protein is >92% pure by SDS-PAGE.
Form/Format	20ug of Recombinant KMT2A (MLL1)-SET expressed in E Coli and supplied in 25mM Tris pH8.0, 300mM NaCl, 5% glycerol, 0.04% Triton X-100.
Protein Species	Human
Tag	GST-Tag
Notes	This product was manufactured as described in Protein Details. Where possible, We has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for a given product is shown on the lot-specific Technical Data Sheet.
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



SDS-PAGE

Recombinant KMT2A (MLL1)-SET binding assay. KMT2A (MLL1)-SET was incubated with 4 equimolar components of MLL1 complex (ASH1L, RBBP5, WDR5 and DPY30) for 2 hours at 4 degree C. All the components were pulled down by GST beads. The sample was run on an 10% SDS-PAGE gel and stained with Coomassie Blue.



SDS-PAGE

Recombinant KMT2A (MLL1)-SET protein gel. KMT2A (MLL1)-SET protein was run on a 10% SDS-PAGE gel and stained with Coomassie Blue.

ADDITIONAL INFORMATION

Related Product Information for KMT2A recombinant protein	Short Description: The peptide corresponding to amino acids 3735-3973 of the KMT2A (MLL1) protein (accession number NP_001184033.1) was expressed in E Coli. The peptide contains the SET domain of MLL that is responsible for methyltransferase activity. Recombinant Recombinant KMT2A (MLL1)-SET contains an N-terminal GST-Tag with a molecular weight of 53.7 kDa. Myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophila), or MLL, also known as HRX, is a Trithorax-group protein that function collectively to promote gene expression. MLL is a transcriptional coactivator that plays an essential role in regulating gene expression during early development and hematopoiesis. The protein contains multiple conserved functional domains. In particular, the SET domain is a conserved C-terminal domain that characterizes proteins of the MLL (mixed-lineage leukemia) family. The SET domain is responsible for its histone H3 lysine 4 (H3K4) methyltransferase activity which mediates chromatin modifications associated with epigenetic transcriptional activation. This protein is processed by the enzyme Taspase 1 into two fragments, MLL-C and MLL-N. These fragments reassociate and further assemble into different multiprotein complexes that regulate the transcription of specific target genes, including many of the HOX genes. Multiple chromosomal translocations involving this gene are the cause of certain acute lymphoid leukemias and acute myeloid leukemias. Alternate splicing results in multiple transcript variants. Recombinant KMT2A (MLL1)-SET protein can be used for enzyme kinetics and inhibitor screening studies. Background: Myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophila), or MLL, also known as KMT2A or HRX, is a Trithorax-group protein that function collectively to promote gene expression. MLL is a transcriptional coactivator that plays an essential role in regulating gene expression during early development and hematopoiesis. The protein contains multiple conserved functional domains. In particular, the SET domain is a conserved C-terminal domain that characterizes proteins of the MLL (mixed-lineage leukemia) family. The SET domain is responsible for its histone H3 lysine 4 (H3K4) methyltransferase activity which mediates chromatin modifications associated with epigenetic transcriptional activation. This protein is processed by the enzyme Taspase 1 into two fragments, MLL-C and MLL-N. These fragments reassociate and further assemble into different multiprotein complexes that regulate the transcription of specific target genes, including many of the HOX genes. Multiple chromosomal translocations involving this gene are the cause of certain acute lymphoid leukemias and acute myeloid leukemias. Alternate splicing results in multiple transcript variants.
Product Categories/Family for KMT2A recombinant protein	Recombinant Proteins; Histone Methyltransferase (HMT)

NCBI AND UNIPROT INFORMATION

NCBI GI #	308199413
NCBI GeneID	4297
NCBI Accession #	NP_001184033.1
NCBI GenBank Nucleotide #	NM_001197104.1
UniProt Accession #	Q03164; Q13743; Q13744; Q14845; Q16364; Q59FF2; Q6UBD1; Q9HBJ3; Q9UD94; Q9UMA3; E9PQG7
Molecular Weight	431,764 Da
NCBI Official Full Name	histone-lysine N-methyltransferase 2A isoform 1
NCBI Official Synonym Full Names	lysine (K)-specific methyltransferase 2A
NCBI Official Symbol	KMT2A
NCBI Official Synonym Symbols	HRX; MLL; TRX1; ALL-1; CXXC7; HTRX1; MLL1A; WDSTS; MLL/GAS7; TET1-MLL
NCBI Protein Information	histone-lysine N-methyltransferase 2A; trithorax-like protein; CDK6/MLL fusion protein; MLL/GAS7 fusion protein; MLL/GMPS fusion protein; zinc finger protein HRX; MLL-AF4 der(11) fusion protein; CXXC-type zinc finger protein 7; myeloid/lymphoid or mixed-l
UniProt Protein Name	Histone-lysine N-methyltransferase 2A
UniProt Gene Name	KMT2A
UniProt Synonym Gene Names	ALL1; CXXC7; HRX; HTRX; MLL; MLL1; TRX1; Lysine N-methyltransferase 2A; p320; p180
UniProt Entry Name	KMT2A_HUMAN

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.

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Online datasheet: <https://stage.aaabiotech.com/kmt2a-recombinant-protein-e-coli/59670>