

KMT2B recombinant protein

Recombinant KMT2B (MLL4) complex

CATALOG #
AAA59720

HOST
E Coli

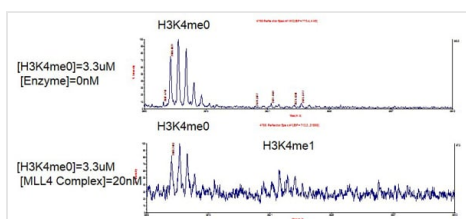
PRODUCT SYNONYMS

KMT2B; Recombinant KMT2B (MLL4) complex; Lysine Methyltransferase 2B;WD Repeat Domain 5; KMT2B recombinant protein

PRODUCT SPECIFICATIONS

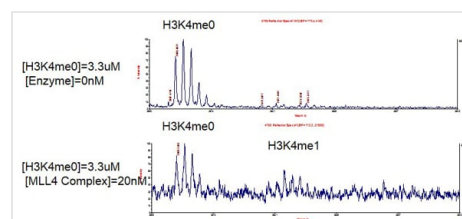
Host	E Coli
Purity/Purification	The recombinant protein is >85% pure by SDS-PAGE.
Form/Format	Recombinant KMT2B (MLL4) complex was expressed in E Coli cells and is supplied in 25mM Tris pH8.0, 300mM NaCl, 5% Glycerol, 0.04% Triton X-100.
Protein Species	Human
Tag	GST-Tag, His-Tag
Notes	Recombinant KMT2B (MLL4) complex is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. HMT Assay Conditions: 3.3uM H3K4me0 (1-21aa) peptide was incubated with different concentrations of recombinant KMT2B (MLL4) complex in reaction buffer containing 50mM TrisCl pH 8.6, 0.02% Triton X-100, 2mM MgCl ₂ , 1mM TCEP, 100uM SAM for 3 hours at room temperature. Activity was detected by HTRF and MALDI-TOF.
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



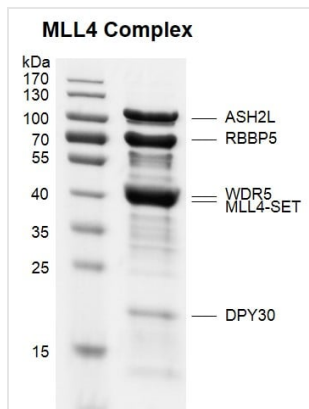
Application Data

Recombinant KMT2B (MLL4) complex MALDI-TOF activity assay 3.3 uM H3K4me0 peptide was incubated with 20 nM Recombinant KMT2B (MLL4) complex in reaction buffer for 3 hours at room temperature. The reaction product was detected by MALDI-TOF. Single 3.3 uM H3K4me0 peptide was used as negative control. Catalytic Ability: 50 turnovers/ enzyme molecule



Application Data

Recombinant KMT2B (MLL4) complex HTRF activity assay 3.3 uM H3K4me0 (1-21aa) peptide was incubated with Recombinant KMT2B (MLL4) complex in reaction buffer for 3 hour at room temperature. Recombinant KMT2B (MLL4) complex was used in a HTRF assay to determine enzyme linearity. Methylated peptide (H3K4me2) was measured using H3K4me2-specific antibody.



SDS-PAGE

Recombinant KMT2B (MLL4) complex gel KMT2B (MLL4) complex was run on an 10% SDS-PAGE gel and stained with Coomassie blue.

ADDITIONAL INFORMATION

Related Product Information for KMT2B recombinant protein	Short Description: Recombinant KMT2B (MLL4) complex contains amino acids 2551-2715 of the human MLL4 protein (accession number NP_055542.1) with an N-terminal GST-Tag and MW = 47.6 kDa; full-length human WDR5 (accession number NM_017588), with N-terminal 6xHis-tag and MW = 35 kDa; full-length human ASH2L (accession number NM_001105214), N-terminal 6xHis-tag and MW = 61 kDa; full-length human RbBP5 (accession number NM_005057), N-terminal 6xHis-tag and MW = 60 kDa, and full-length human DPY30 (accession number NM_032574), N-terminal 6xHis-tag and MW =12 kDa, all individually expressed in E Coli. The recombinant protein is >85% pure by SDS-PAGE. Recombinant KMT2B (MLL4) complex is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Background: KMT2B (MLL4)(Myeloid/lymphoid or mixed-lineage leukemia 4) is a Trithorax-group protein that function collectively to promote gene expression. KMT2B (MLL4) is a histone methyltransferase that methylates the Lysine 4 position of histone H3. 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 methyltransferase activity which mediates chromatin modifications associated with epigenetic transcriptional activation. H3K4 methylation represents a specific epigenetic tag for transcriptional activation. MLL4 plays a central role in b-globin locus transcription regulation by being recruited by Nfe2. KMT2B (MLL4) is also required during the transcriptionally active period of oocyte growth for the establishment and/or maintenance of bulk H3K4 trimethylation (H3K4me3), global transcriptional silencing that precedes resumption of meiosis, oocyte survival and normal zygotic genome activation. MLL4 may also be involved in human cancer as its expression has been shown to be upregulated in solid tumor cell lines.
Product Categories/Family for KMT2B recombinant protein	Recombinant Proteins ; Histone Methyltransferase (HMT)

NCBI AND UNIPROT INFORMATION

NCBI GI #	7662046
NCBI GeneID	9757
NCBI Accession #	NP_055542.1
NCBI GenBank Nucleotide #	NM_017588
UniProt Accession #	Q9UMN6 ; O15022 ; O95836 ; Q96GP2 ; Q96IP3 ; Q9UK25 ; Q9Y668 ; Q9Y669
NCBI Official Full Name	histone-lysine N-methyltransferase 2B
NCBI Official Synonym Full Names	lysine (K)-specific methyltransferase 2B
NCBI Official Symbol	KMT2B
NCBI Official Synonym Symbols	HRX2; MLL2; MLL4; TRX2; WBP7; MLL1B; WBP-7

NCBI Protein Information	histone-lysine N-methyltransferase 2B; trithorax homologue 2; WW domain binding protein 7; mixed lineage leukemia gene homolog 2; histone-lysine N-methyltransferase MLL4; myeloid/lymphoid or mixed-lineage leukemia protein 4; myeloid/lymphoid or mixed-line
UniProt Protein Name	Histone-lysine N-methyltransferase 2B
UniProt Gene Name	KMT2B
UniProt Synonym Gene Names	HRX2; KIAA0304; MLL2; MLL4; TRX2; WBP7; Lysine N-methyltransferase 2B; WBP-7
UniProt Entry Name	KMT2B_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://www.aaabiotech.com/kmt2b-recombinant-protein-e-coli/59720>