

KMT2B recombinant protein

Recombinant KMT2B (MLL4)-SET protein

CATALOG #
AAA59673

HOST
E Coli

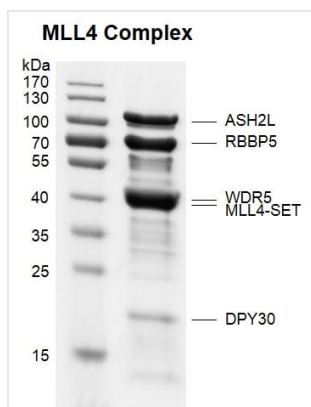
PRODUCT SYNONYMS

KMT2B; Recombinant KMT2B (MLL4)-SET protein; HRX2; MLL2; TRX2; WBP7; MLL1B; WBP-7; CXXC10; KMT2B recombinant protein

PRODUCT SPECIFICATIONS

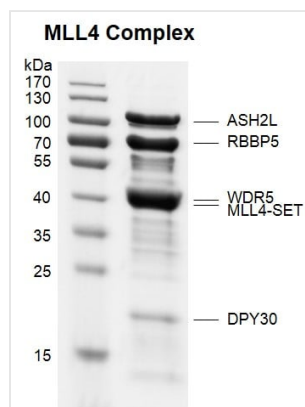
Host	E Coli
Form/Format	20ug of recombinant KMT2B (MLL4)-SET protein expressed in E Coli and supplied in 25mM Tris pH8.0, 300mM NaCl, 5% glycerol, 0.04% Triton X-100.
Protein Species	Human
Tag	GST-Tag
Notes	This product was manufactured as described in Protein Details. Where possible, We has developed 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 KMT2B (MLL4)-SET protein gel. KMT2B (MLL4)-SET was incubated 4 equimolar components of the MLL4 complex (ASH2L, 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 KMT2B (MLL4)-SET protein gel. KMT2B (MLL4)-SET protein was run on a 10% SDS-PAGE gel and stained with Coomassie Blue.

ADDITIONAL INFORMATION

Related Product Information for KMT2B recombinant protein	Short Description: The peptide corresponding to amino acids 2551-2715 of the MLL4 protein (accession number NP_055542.1) was expressed in E Coli. The peptide contains the SET domain of MLL2 that is responsible for methyltransferase activity. Recombinant MLL4-SET contains an N-terminal GST-Tag with a molecular weight of 45.2 kDa. Myeloid/lymphoid or mixed-lineage leukemia 4 (MLL4) is a Trithorax-group protein that function collectively to promote gene expression. 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. 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. Recombinant MLL4-SET protein can be used for enzyme kinetics and inhibitor screening studies. Background: KMT2B (MLL4, Myeloid/lymphoid or mixed-lineage leukemia)-SET is a Trithorax-group protein that function collectively to promote gene expression. KMT2B (MLL4)-SET 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. KMT2B (MLL4)-SET plays a central role in b-globin locus transcription regulation by being recruited by Nfe2. KMT2B (MLL4)-SET 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. KMT2B (MLL4)-SET 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_014727.2
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/59673>