

KMT2D recombinant protein

Recombinant KMT2D (MLL2) complex

CATALOG #
AAA59719

HOST
E Coli

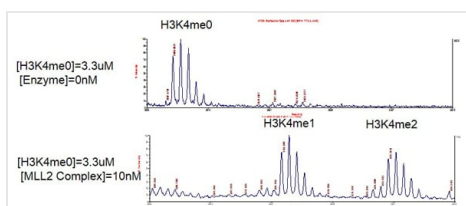
PRODUCT SYNONYMS

KMT2D; Recombinant KMT2D (MLL2) complex; KMT2D recombinant protein

PRODUCT SPECIFICATIONS

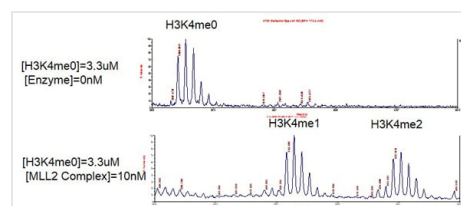
Host	E Coli
Purity/Purification	The recombinant protein is >80% pure by SDS-PAGE.
Form/Format	Recombinant KMT2D (MLL2) complex was expressed in E Coli cells and is supplied in 25mM Tris pH8.0, 300mM NaCl, 5% Glycerol, 0.04% Triton X-100.
Protein Species	Human
Tag	GST-Tag, His-Tag
Notes	Recombinant KMT2D (MLL2) 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 KMT2D (MLL2) 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



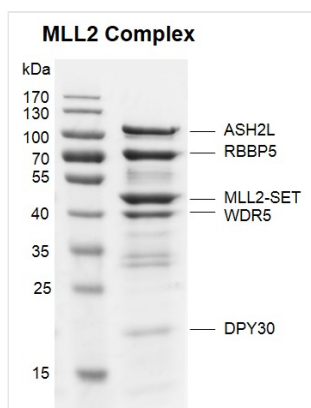
Application Data

Recombinant KMT2D (MLL2) complex MALDI-TOF activity assay 3.3 uM H3K4me0 peptide was incubated with 10 nM KMT2D (MLL2) 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: ~450 turnovers/ enzyme molecule



Application Data

Recombinant KMT2D (MLL2) complex HTRF activity assay 3.3 uM H3K4me0 (1-21aa) peptide was incubated with KMT2D (MLL2) complex in reaction buffer for 3 hour at room temperature. KMT2D (MLL2) complex was used in a HTRF assay to determine enzyme linearity. Methylated peptide (H3K4me2) was measured using H3K4me2-specific antibody.



SDS-PAGE

Recombinant KMT2D (MLL2) complex gel
 Recombinant KMT2D (MLL2) complex was run on an 10% SDS-PAGE gel and stained with Coomassie blue.

ADDITIONAL INFORMATION

Related Product Information for KMT2D recombinant protein

Short Description: Recombinant KMT2D (MLL2) complex contains amino acids 5355-5537 of the human MLL2 protein (accession number NP_003473.3) with 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 >80% pure by SDS-PAGE. Recombinant KMT2D (MLL2) complex is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.

Background: KMT2D (MLL2) complex (Myeloid/lymphoid or mixed-lineage leukemia 2) is a Trithorax-group protein that function collectively to promote gene expression. KMT2D (MLL2) 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. MLL2 is part of a large protein complex called ASCOM, which has been shown to be a transcriptional regulator of the b-globin and estrogen receptor genes. Mutations in this gene have been shown to be a cause of Kabuki syndrome.

Product Categories/Family for KMT2D recombinant protein

[Recombinant Proteins](#); [Histone Methyltransferase \(HMT\)](#)

NCBI AND UNIPROT INFORMATION

NCBI GI #	148762969
NCBI GeneID	8085
NCBI Accession #	NP_003473.3
NCBI GenBank Nucleotide #	NM_017588
UniProt Accession #	O14686 ; O14687
Molecular Weight	593,677 Da
NCBI Official Full Name	histone-lysine N-methyltransferase 2D
NCBI Official Synonym Full Names	lysine (K)-specific methyltransferase 2D
NCBI Official Symbol	KMT2D
NCBI Official Synonym Symbols	ALR; KMS; MLL2; MLL4; AAD10; KABUK1; TNRC21; CAGL114

NCBI Protein Information	histone-lysine N-methyltransferase 2D; ALL1-related protein; Kabuki make-up syndrome; Kabuki mental retardation syndrome; trinucleotide repeat containing 21; histone-lysine N-methyltransferase MLL2; myeloid/lymphoid or mixed-lineage leukemia 2
UniProt Protein Name	Histone-lysine N-methyltransferase 2D
UniProt Gene Name	KMT2D
UniProt Synonym Gene Names	ALR; MLL2; MLL4; Lysine N-methyltransferase 2D
UniProt Entry Name	KMT2D_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/kmt2d-recombinant-protein-e-coli/59719>