

KMT2D recombinant protein

Recombinant KMT2D (MLL2)-SET protein

CATALOG #
AAA59671

HOST
E Coli

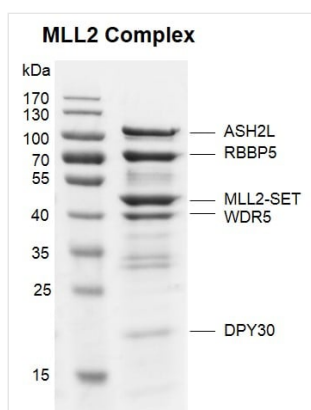
PRODUCT SYNONYMS

KMT2D; Recombinant KMT2D (MLL2)-SET protein; ALR; KMS; MLL4; AAD10; KABUK1; TNRC21; CAGL114; KMT2D recombinant protein

PRODUCT SPECIFICATIONS

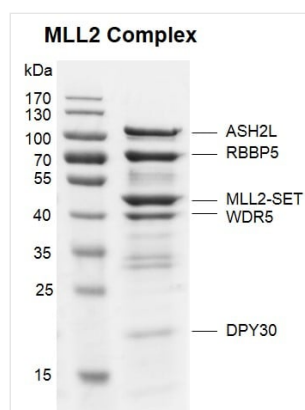
Host	E Coli
Purity/Purification	The recombinant protein is >= 80% pure by SDS-PAGE.
Form/Format	Recombinant KMT2D (MLL2)-SET protein was expressed in E Coli cells and supplied in 25mM Tris pH8.0, 300mM NaCl, 5% glycerol, 0.04% Triton X-100.
Protein Species	Human
Tag	GST-Tag
Notes	This product was manufactured 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 KMT2D (MLL2)-SET protein binding assay. KMT2D (MLL2)-SET was incubated with equimolar other 4 components of MLL2 complex (ASH2L, RBBP5, WDR5 and DPY30) for 2 hours 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 KMT2D (MLL2)-SET protein gel. KMT2D (MLL2)-SET protein was run on a 10% SDS-PAGE gel and stained with Coomassie Blue.

ADDITIONAL INFORMATION

Related Product Information for KMT2D recombinant protein	Short Description: The peptide corresponding to amino acids 5355-5537 of the MLL2 protein (accession number NP_003473.3) was expressed in E Coli. The peptide contains the SET domain of MLL2 that is responsible for methyltransferase activity. Recombinant MLL2-SET contains an N-terminal GST-Tag with a molecular weight of 47.6 kDa. Myeloid/lymphoid or mixed-lineage leukemia 2 (MLL2) is a Trithorax-group protein that function collectively to promote gene expression. 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. Recombinant MLL2-SET protein can be used for enzyme kinetics and inhibitor screening studies. Background: KMT2D (MLL2)-SET (Myeloid/lymphoid or mixed-lineage leukemia 2) is a Trithorax-group protein that function collectively to promote gene expression. KMT2D (MLL2)-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. KMT2D (MLL2)-SET 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_003482.3
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.