

Recombinant Human KMT2A Protein

Cat. No. KMT2A-002H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant C-terminal fragment of MLL1, residues 3762 - 3969, contains the SET1 domain for methyltransferase activity, and the WIN motif for binding the WAR complex without tag was expressed in E. coli. (An N-terminal hexahistidine tag and SUMOpro tag were removed by cleavage with SUMO protease 1)
Species	Human
Source	E.coli
ProteinLength	3762-3969 a.a.
Description	This gene encodes a transcriptional coactivator that plays an essential role in regulating gene expression during early development and hematopoiesis. The encoded protein contains multiple conserved functional domains. One of these domains, 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.
Molecular Mass	24.1 kDa

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Purity	≥ 90% estimated by SDS-PAGE
Stability	≥ 6 months
Storage	Store at -80 centigrade
Storage Buffer	50 mM Tris, pH 8.0, with 400 nM sodium chloride, 10% glycerol, and 5 mM 2-mercaptoethanol
Shipping	Dry ice in continental US, may vary elsewhere.

GENE INFORMATION

Gene Name	KMT2A lysine methyltransferase 2A [Homo sapiens (human)]
Official Symbol	KMT2A
Synonyms	KMT2A; lysine methyltransferase 2A; HRX; MLL; MLL1; TRX1; ALL-1; CXXC7; HTRX1; MLL1A; WDSTS; histone-lysine N-methyltransferase 2A; CXXC-type zinc finger protein 7; lysine (K)-specific methyltransferase 2A; lysine N-methyltransferase 2A; mixed lineage leukemia 1; myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophila); trithorax-like protein; zinc finger protein HRX; EC 2.1.1.354
Gene ID	4297
mRNA Refseq	NM_005933
Protein Refseq	NP_005924
MIM	159555

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UniProt ID Q03164**SDS-PAGE**

Lane 1: MW Markers

Lane 2: MLL1 SET domain(1 µg)

Lane 3: MLL1 SET domain(2 µg)

Lane 4: MLL1 SET domain(5 µg)

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