

# Recombinant Human MLL1/WARD Complex Protein, SUMOpro-tagged

**Cat. No.** KMT2A-007H    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

Recombinant proteins expressed in E. coli. MLL1, WDR5, Ash2L, RbBP5, and DPY-30 are expressed with N-terminal His-SUMOpro affinity tags.

### Species

Human

### Source

E.coli

### 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

~200.1 kDa

### Purity

≥90%

### Stability

≥ 6 months

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**Storage** At -80 centigrade.

## 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\_001197104

**Protein Refseq** NP\_001184033

**MIM** 159555

**UniProt ID** Q03164

**WB**

Lane 1: MLL1/WARD Complex (1  $\mu$ M each of MLL1, Ash2L, RbBP5, WDR5, DPY-30)

Lane 2: MLL1/WARD Complex (3  $\mu$ M each of MLL1, Ash2L, RbBP5, WDR5, DPY-30)

Lane 3: MLL1/WAR Complex (1  $\mu$ M each of MLL1, Ash2L, RbBP5, WDR5)

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Lane 4: MLL1/WAR Complex (3  $\mu$ M each of MLL1, Ash2L, RbBP5, WDR5)

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