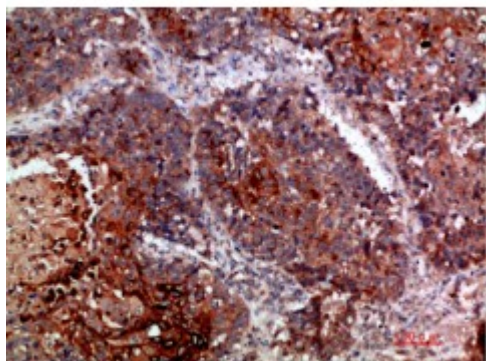


## Anti-MLL antibody



<b>Description</b>	Rabbit polyclonal to MLL.
<b>Model</b>	STJ98732
<b>Host</b>	Rabbit
<b>Reactivity</b>	Human, Mouse, Rat
<b>Applications</b>	ELISA, IHC
<b>Immunogen</b>	Synthetic peptide from human MLL protein.
<b>Immunogen Region</b>	3850-3900 aa
<b>Gene ID</b>	<a href="#">4297</a>
<b>Gene Symbol</b>	<a href="#">KMT2A</a>
<b>Dilution range</b>	IHC-P 1:50-300ELISA 1:5000-20000
<b>Specificity</b>	The antibody detects endogenous MLL.
<b>Tissue Specificity</b>	Heart, lung, brain and T- and B-lymphocytes.
<b>Purification</b>	The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.
<b>Note</b>	For Research Use Only (RUO).
<b>Protein Name</b>	Histone-lysine N-methyltransferase 2A Lysine N-methyltransferase 2A ALL-1 CXXC-type zinc finger protein 7 Myeloid/lymphoid or mixed-lineage leukemia Myeloid/lymphoid or mixed-lineage leukemia protein 1 Trithorax-like pr
<b>Clonality</b>	Polyclonal

<b>Conjugation</b>	Unconjugated
<b>Isotype</b>	IgG
<b>Formulation</b>	PBS, pH 7.4, containing 0.02% sodium azide as Preservative and 50% Glycerol.
<b>Concentration</b>	1 mg/ml
<b>Storage Instruction</b>	Store at -20°C, and avoid repeat freeze-thaw cycles.
<b>Database Links</b>	<a href="#">HGNC:7132OMIM:159555</a>
<b>Alternative Names</b>	Histone-lysine N-methyltransferase 2A Lysine N-methyltransferase 2A ALL-1 CXXC-type zinc finger protein 7 Myeloid/lymphoid or mixed-lineage leukemia Myeloid/lymphoid or mixed-lineage leukemia protein 1 Trithorax-like pr
<b>Function</b>	Histone methyltransferase that plays an essential role in early development and hematopoiesis. Catalytic subunit of the MLL1/MLL complex, a multiprotein complex that mediates both methylation of 'Lys-4' of histone H3 (H3K4me) complex and acetylation of 'Lys-16' of histone H4 (H4K16ac). In the MLL1/MLL complex, it specifically mediates H3K4me, a specific tag for epigenetic transcriptional activation. Has weak methyltransferase activity by itself, and requires other component of the MLL1/MLL complex to obtain full methyltransferase activity. Has no activity toward histone H3 phosphorylated on 'Thr-3', less activity toward H3 dimethylated on 'Arg-8' or 'Lys-9', while it has higher activity toward H3 acetylated on 'Lys-9'. Required for transcriptional activation of HOXA9. Promotes PPP1R15A-induced apoptosis. Plays a critical role in the control of circadian gene expression and is essential for the transcriptional activation mediated by the CLOCK-ARNTL/BMAL1 heterodimer. Establishes a permissive chromatin state for circadian transcription by mediating a rhythmic methylation of 'Lys-4' of histone H3 (H3K4me) and this histone modification directs the circadian acetylation at H3K9 and H3K14 allowing the recruitment of CLOCK-ARNTL/BMAL1 to chromatin .
<b>Sequence and Domain Family</b>	The 9aaTAD motif is a transactivation domain present in a large number of yeast and animal transcription factors. The SET domain structure is atypical and is not in an optimal position to have methyltransferase activity. It requires other components of the MLL1/MLL complex, such as ASH2L or RBBP5, to order the active site and obtain optimal histone methyltransferase activity. The CXXC-type zinc finger binds bind to nonmethyl-CpG dinucleotides.
<b>Cellular Localization</b>	Nucleus MLL cleavage product N320: Nucleus.. MLL cleavage product C180: Nucleus. Localizes to a diffuse nuclear pattern when not associated with MLL cleavage product N320.
<b>Post-translational Modifications</b>	Proteolytic cleavage by TASP1 generates MLL cleavage product N320 and MLL cleavage product C180, which reassemble through a non-covalent association. 2 cleavage sites exist, cleavage site 1 (CS1) and cleavage site 2 (CS2), to generate MLL cleavage products N320 and C180. CS2 is the major site.