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Anti-MLL1 Antibody
Rabbit polyclonal antibody to MLL1
Catalog # AP61295

Specification

Anti-MLL1 Antibody - Product Information

Application	**WB**
Primary Accession	Q03164
Other Accession	P55200
Reactivity	**Human, Mouse, Rat, Monkey, Pig, Bovine, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**431764**

Anti-MLL1 Antibody - Additional Information

Gene ID 4297

Other Names
ALL1; CXXC7; HRX; HTRX; MLL; MLL1; TRX1; 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 protein; Zinc finger protein HRX

Target/Specificity
Recognizes endogenous levels of MLL1 protein.

Dilution
WB~~WB (1/500 - 1/1000)

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-MLL1 Antibody - Protein Information

Name KMT2A

Synonyms ALL1, CXXC7, HRX, HTRX, MLL, MLL1, TRX1

Function
Histone methyltransferase that plays an essential role in early development and hematopoiesis (PubMed:12453419, PubMed:15960975,

PubMed:19187761, PubMed:19556245, PubMed:20677832, PubMed:21220120, PubMed:26886794). 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) (PubMed:12453419, PubMed:15960975, PubMed:19187761, PubMed:19556245, PubMed:20677832, PubMed:21220120, PubMed:24235145, PubMed:26886794). Catalyzes methyl group transfer from S-adenosyl-L- methionine to the epsilon-amino group of 'Lys-4' of histone H3 (H3K4) via a non-processive mechanism. Part of chromatin remodeling machinery predominantly forms H3K4me1 and H3K4me2 methylation marks at active chromatin sites where transcription and DNA repair take place (PubMed:12453419, PubMed:15960975, PubMed:19187761, PubMed:19556245, PubMed:20677832, PubMed:21220120, PubMed:25561738, PubMed:26886794). Has weak methyltransferase activity by itself, and requires other component of the MLL1/MLL complex to obtain full methyltransferase activity (PubMed:19187761, PubMed:26886794). 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' (PubMed:19187761). Binds to unmethylated CpG elements in the promoter of target genes and helps maintain them in the nonmethylated state (PubMed:20010842). Required for transcriptional activation of HOXA9 (PubMed:12453419, PubMed:20010842, PubMed:20677832). Promotes PPP1R15A-induced apoptosis (PubMed:10490642). Plays a critical role in the control of circadian gene expression and is essential for the transcriptional activation mediated by the CLOCK-BMAL1 heterodimer (By similarity). 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-BMAL1 to chromatin (By similarity). Also has auto-methylation activity on Cys-3882 in absence of histone H3 substrate (PubMed:24235145).

Cellular Location
Nucleus [MLL cleavage product C180]: Nucleus. Note=Localizes to a diffuse nuclear pattern when not associated with MLL cleavage product N320

Tissue Location
Heart, lung, brain and T- and B-lymphocytes.

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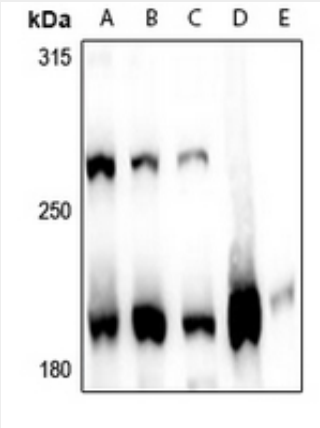
Anti-MLL1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-MLL1 Antibody - Images



Western blot analysis of MLL1 expression in K562 (A), A375 (B), U87MG (C), mouse brain (D), rat spleen (E) whole cell lysates.

Anti-MLL1 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human MLL1. The exact sequence is proprietary.