10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MLL Polyclonal Antibody
Catalog # AP74102

Specification

MLL Polyclonal Antibody - Product Information

Application	**IHC-P**
Primary Accession	Q03164
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**

MLL Polyclonal Antibody - Additional Information

Gene ID 4297

Other Names
Histone-lysine N-methyltransferase MLL (EC 2.1.1.43) (ALL-1) (CXXC-type zinc finger protein 7) (Lysine N-methyltransferase 2A) (KMT2A) (Trithorax-like protein) (Zinc finger protein HRX) [Cleaved into: MLL cleavage product N320 (N-terminal cleavage product of 320 kDa) (p320); MLL cleavage product C180 (C-terminal cleavage product of 180 kDa) (p180)]

Dilution
IHC-P~~N/A

Format
Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions
-20℃

MLL Polyclonal 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:<a href="http://www.uniprot.org/citations/12453419"

target="_blank">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.

MLL Polyclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot

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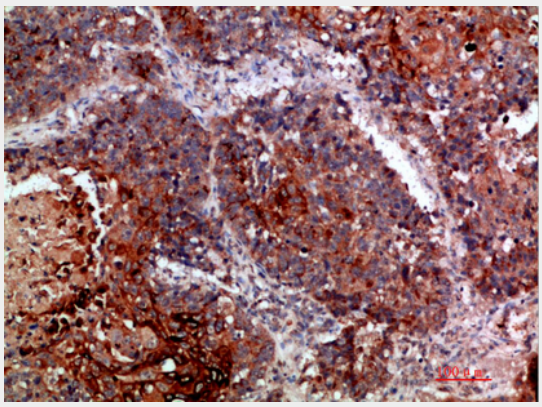
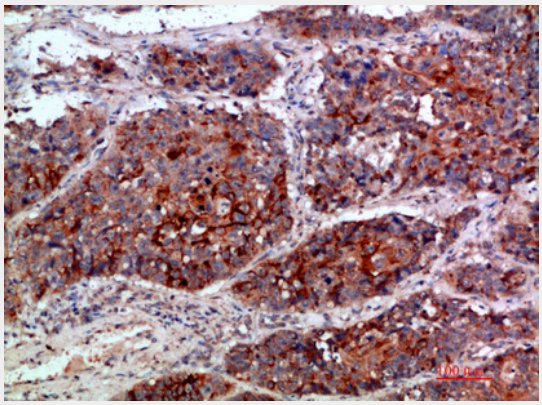
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MLL Polyclonal Antibody - Images



Immunohistochemical analysis of paraffin-embedded human-lung-cancer, antibody was diluted at 1:200



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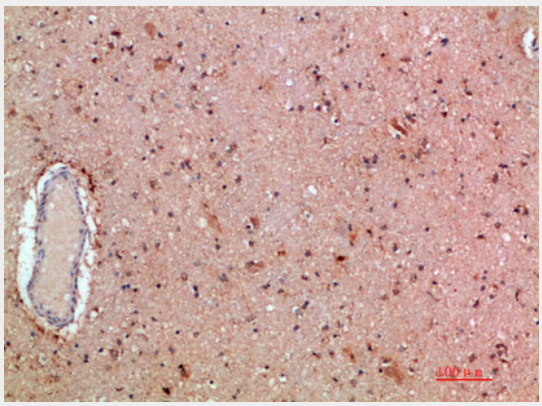

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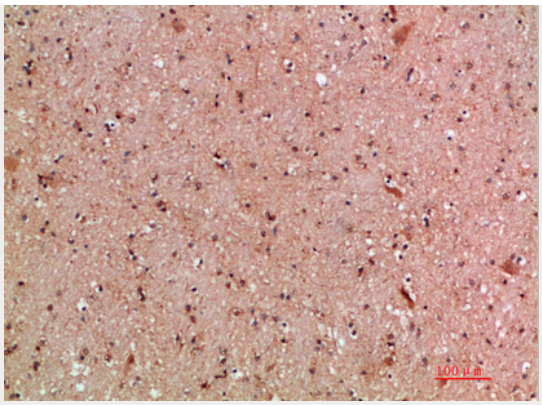
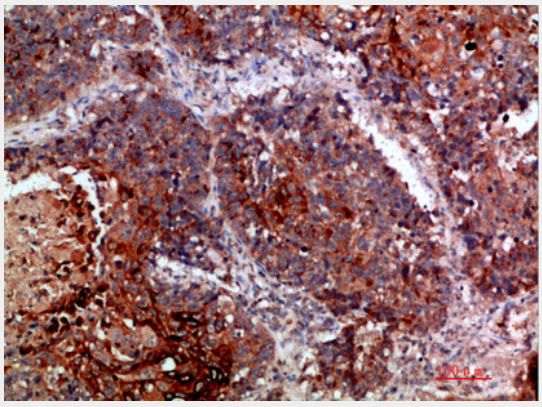
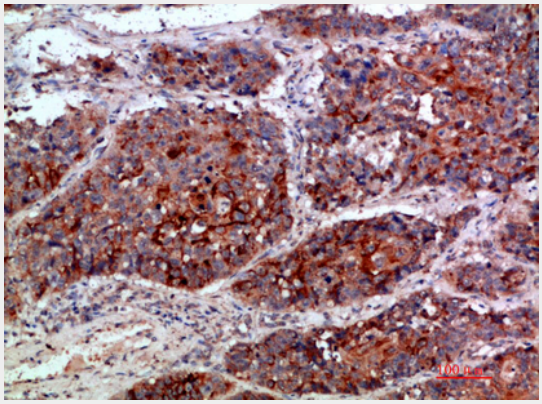


Immunohistochemical analysis of paraffin-embedded human-brain, antibody was diluted at 1:200



Immunohistochemical analysis of paraffin-embedded human-lung-cancer, antibody was diluted at 1:200



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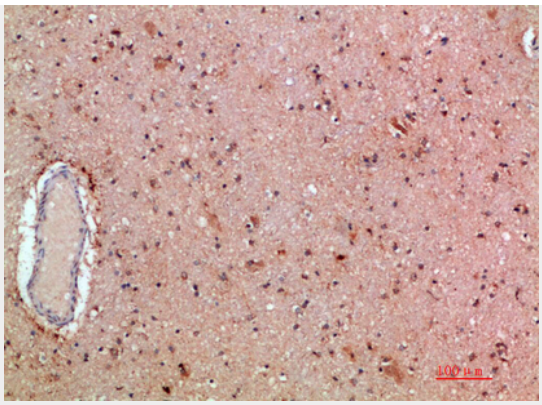
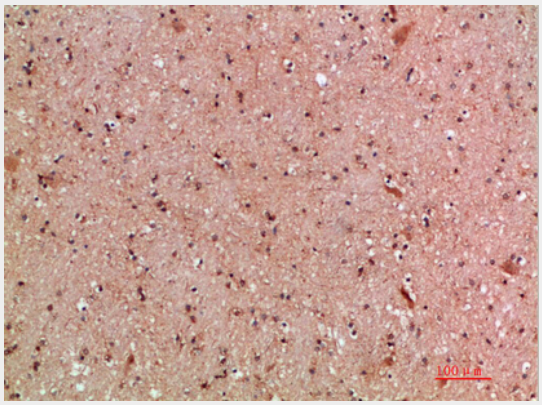


Immunohistochemical analysis of paraffin-embedded human-brain, antibody was diluted at 1:200



Immunohistochemical analysis of paraffin-embedded human-brain, antibody was diluted at 1:200

MLL Polyclonal Antibody - Background

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