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MLL5 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14173a

Specification

MLL5 Antibody (N-term) - Product Information

Application	**WB,E**
Primary Accession	Q8IZD2
Other Accession	Q3UG20, Q8NFF8, NP_891847.1, NP_061152.3, Q9NS29
Reactivity	**Human**
Predicted	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**93-120**

MLL5 Antibody (N-term) - Additional Information

Gene ID 55904

Other Names
Histone-lysine N-methyltransferase 2E, Lysine N-methyltransferase 2E, Myeloid/lymphoid or mixed-lineage leukemia protein 5, KMT2E, MLL5

Target/Specificity
This MLL5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 93-120 amino acids from the N-terminal region of human MLL5.

Dilution
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
MLL5 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

MLL5 Antibody (N-term) - Protein Information

Name KMT2E

Synonyms MLL5

Function Associates with chromatin regions downstream of transcriptional start sites of active genes and thus regulates gene transcription (PubMed:23629655, PubMed:24130829, PubMed:23798402). Chromatin interaction is mediated via the binding to tri-methylated histone H3 at 'Lys-4' (H3K4me3) (PubMed:24130829, PubMed:23798402). Key regulator of hematopoiesis involved in terminal myeloid differentiation and in the regulation of hematopoietic stem cell (HSCs) self-renewal by a mechanism that involves DNA methylation (By similarity). Also acts as an important cell cycle regulator, participating in cell cycle regulatory network machinery at multiple cell cycle stages including G1/S transition, S phase progression and mitotic entry (PubMed:14718661, PubMed:18573682, PubMed:19264965, PubMed:23629655). Recruited to E2F1 responsive promoters by HCFC1 where it stimulates tri-methylation of histone H3 at 'Lys-4' and transcriptional activation and thereby facilitates G1 to S phase transition (PubMed:23629655). During myoblast differentiation, required to suppress inappropriate expression of S-phase-promoting genes and maintain expression of determination genes in quiescent cells (By similarity).

Cellular Location
Chromosome. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Nucleus speckle. Note=Absent from the nucleolus (PubMed:14718661). Localizes to chromosome during interphase and to centrosomes during mitosis (PubMed:23798402). Dissociation from mitotic chromosome is likely due to histone H3 phosphorylation on 'Thr-3' and 'Thr-6' (PubMed:23798402). [Isoform NKp44L]: Cytoplasm. Cell membrane; Peripheral membrane protein

Tissue Location
Widely expressed in both adult and fetal tissues (PubMed:12101424, PubMed:23958951). Highest levels of expression observed in fetal thymus and kidney and in adult hematopoietic tissues, jejunum and cerebellum (PubMed:12101424, PubMed:23958951). Isoform NKp44L: Not detected on circulating cells from healthy individuals, but is expressed on a large panel of tumor and transformed cells (PubMed:23958951).

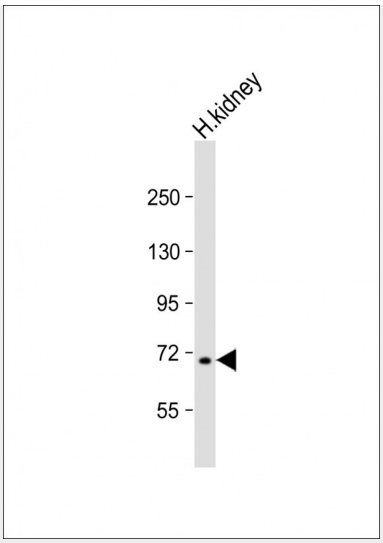
MLL5 Antibody (N-term) - Protocols

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

MLL5 Antibody (N-term) - Images

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Anti-MLL5 Antibody (N-term) at 1:1000 dilution + human kidney lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 205 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

MLL5 Antibody (N-term) - Background

This gene is a member of the myeloid/lymphoid or mixed-lineage leukemia (MLL) family and encodes a protein with an N-terminal PHD zinc finger and a central SET domain. Overexpression of the protein inhibits cell cycle progression. Alternate transcriptional splice variants have been characterized. [provided by RefSeq].

MLL5 Antibody (N-term) - References

Liu, J., et al. J. Biol. Chem. 285(27):20904-20914(2010)
Fujiki, R., et al. Nature 459(7245):455-459(2009)
Cheng, F., et al. Int. J. Biochem. Cell Biol. 40(11):2472-2481(2008)
Sun, X.J., et al. PLoS ONE 3 (1), E1499 (2008) :
Olsen, J.V., et al. Cell 127(3):635-648(2006)

MLL5 Antibody (N-term) - Citations

- MLL5 suppresses antiviral innate immune response by facilitating STUB1-mediated RIG-I degradation.
- Mixed lineage leukemia 5 (MLL5) protein regulates cell cycle progression and E2F1-responsive gene expression via association with host cell factor-1 (HCF-1).