

**MLL5 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP14173a****Specification**

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**MLL5 Antibody (N-term) - Product Information**

Application	<b>WB,E</b>
Primary Accession	<a href="#">O8IZD2</a>
Other Accession	<a href="#">O3UG20</a> , <a href="#">O8NFF8</a> , <a href="#">NP_891847.1</a> , <a href="#">NP_061152.3</a> , <a href="#">O9NS29</a>
Reactivity	<b>Human</b>
Predicted	<b>Mouse</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Antigen Region	<b>93-120</b>

**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:[23798402](#), PubMed:[24130829](#)). Chromatin interaction is mediated via the binding to tri-methylated histone H3 at 'Lys-4' (H3K4me3) (PubMed:[23798402](#), PubMed:[24130829](#)). 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

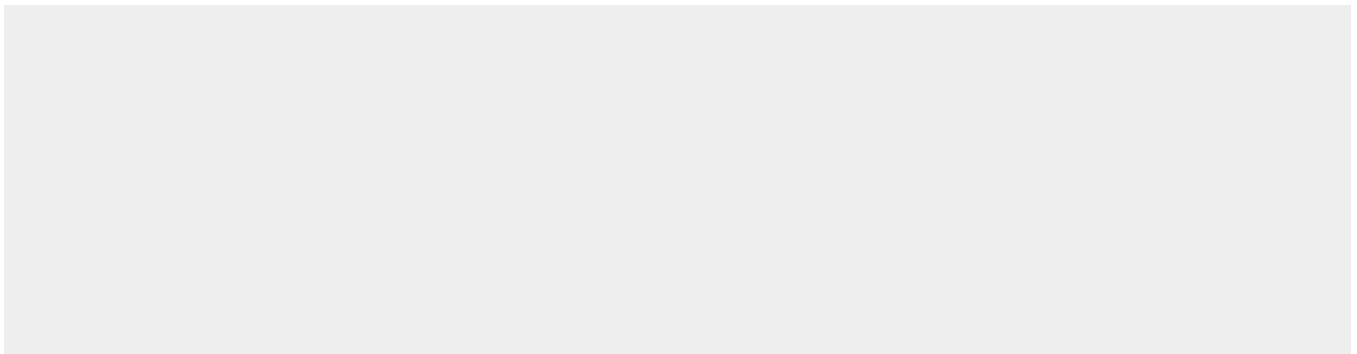
Widely expressed in both adult and fetal tissues (PubMed:[12101424](#), PubMed:[23958951](#)). Highest levels of expression observed in fetal thymus and kidney and in adult hematopoietic tissues, jejunum and cerebellum (PubMed:[12101424](#), PubMed:[23958951](#)). Isoform NKp44L: Not detected on circulating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

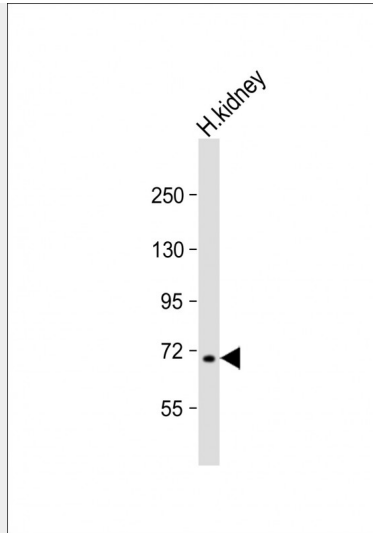
## MLL5 Antibody (N-term) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## MLL5 Antibody (N-term) - Images





Anti-MLL5 Antibody (N-term) at 1:1000 dilution + human kidney lysate Lysates/proteins at 20  $\mu$ g 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 \(HCF-1\).](#)