

MLL5 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP14173a

Product Information

Application	WB, E
Primary Accession	Q8IZD2
Other Accession	Q3UG20 , Q8NFF8 , NP_891847.1 , NP_061152.3
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19215
Calculated MW	204965
Antigen Region	93-120

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 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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.

Protein Information

Name	KMT2E
Synonyms	MLL5

Function	<p>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).</p>
Cellular Location	<p>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</p>
Tissue Location	<p>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).</p>

Background

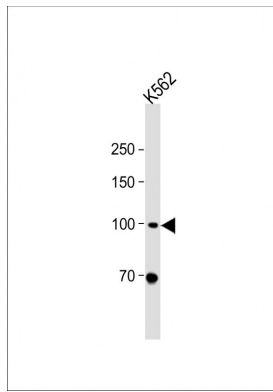
This gene is a member of the myeloid/lymphoid or mixed-lineage leukemia (MLL) family and encodes a protein with an N-terminal PHD zinc finger and a central SET domain. Overexpression of the protein inhibits cell cycle progression. Alternate transcriptional splice variants have been characterized. [provided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

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)

Images

All lanes: Anti-MLL5 Antibody (N-term) at 1:2000 dilution
 + K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 100 KDa Blocking/Dilution buffer: 5% NFD/MTBST.



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 \(HCF-1\).](#)

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