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MLL3 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22079a

Product Information

Application	IHC-P, E
Primary Accession	Q8NEZ4
Other Accession	Q8BRH4
Reactivity	Human, Mouse
Predicted	Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB52487
Calculated MW	541370

Additional Information

Gene ID	58508
Other Names	Histone-lysine N-methyltransferase 2C, Lysine N-methyltransferase 2C, 2.1.1.43, Homologous to ALR protein, Myeloid/lymphoid or mixed-lineage leukemia protein 3, KMT2C, HALR, KIAA1506, MLL3
Target/Specificity	This MLL3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 1142-1175 amino acids from the N-terminal region of human MLL3.
Dilution	IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
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	MLL3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KMT2C
Synonyms	HALR, KIAA1506, MLL3

Function	Histone methyltransferase that catalyzes methyl group transfer from S-adenosyl-L-methionine to the epsilon-amino group of 'Lys-4' of histone H3 (H3K4) (PubMed:25561738). Part of chromatin remodeling machinery predominantly forms H3K4me1 methylation marks at active chromatin sites where transcription and DNA repair take place (PubMed:22266653, PubMed:24081332, PubMed:25561738). Likely plays a redundant role with KMT2D in enriching H3K4me1 mark on primed and active enhancer elements (PubMed:24081332).
Cellular Location	Nucleus.
Tissue Location	Highly expressed in testis and ovary, followed by brain and liver. Also expressed in placenta, peripherical blood, fetal thymus, heart, lung and kidney. Within brain, expression was highest in hippocampus, caudate nucleus, and substantia nigra. Not detected in skeletal muscle and fetal liver

Background

Histone methyltransferase. Methylates 'Lys-4' of histone H3. H3 'Lys-4' methylation represents a specific tag for epigenetic transcriptional activation. Central component of the MLL2/3 complex, a coactivator complex of nuclear receptors, involved in transcriptional coactivation. KMT2C/MLL3 may be a catalytic subunit of this complex. May be involved in leukemogenesis and developmental disorder.

References

Ruault M.,et al.Gene 284:73-81(2002).
Tan Y.C.,et al.Cancer Detect. Prev. 25:454-469(2001).
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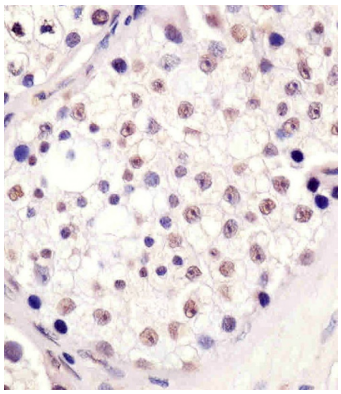
Nagase T.,et al.DNA Res. 7:143-150(2000).
Nakajima D.,et al.DNA Res. 9:99-106(2002).

Images



AP22079a staining MLL3 in human testis tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

Citations

- The Histone Methyltransferase Mixed Lineage Leukemia (MLL) 3 May Play a Potential Role on Clinical Dilated Cardiomyopathy.