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MLL4 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51688

Product Information

Application	WB
Primary Accession	Q9UMN6
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	293515

Additional Information

Gene ID	9757
Other Names	Histone-lysine N-methyltransferase 2B, Lysine N-methyltransferase 2B, Myeloid/lymphoid or mixed-lineage leukemia protein 4, Trithorax homolog 2, WW domain-binding protein 7, WBP-7, KMT2B, HRX2, KIAA0304, MLL2, MLL4, TRX2, WBP7
Dilution	WB~~1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	KMT2B
Synonyms	HRX2, KIAA0304, MLL2, MLL4, TRX2, WBP7
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) 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:17707229, PubMed:25561738). Likely plays a redundant role with KMT2C in enriching H3K4me1 marks on primed and active enhancer elements (PubMed:24081332). Plays a central role in beta-globin locus transcription regulation by being recruited by NFE2 (PubMed:17707229). Plays an important role in controlling bulk H3K4me during oocyte growth and preimplantation development (By similarity). Required during the transcriptionally active period of oocyte growth for the establishment and/or maintenance of bulk H3K4 trimethylation (H3K4me3), global transcriptional silencing that preceeds resumption of meiosis, oocyte survival and normal

	zygotic genome activation (By similarity).
Cellular Location	Nucleus.
Tissue Location	Widely expressed. Highest levels in testis. Also found in brain with higher expression in the cerebellum than in any other region, bone marrow, heart, muscle, kidney, placenta, spleen, thymus, prostate, ovary, intestine, colon, peripheral blood lymphocytes and pancreas. Often amplified in pancreatic carcinomas

Background

Histone methyltransferase. Methylates 'Lys-4' of histone H3. H3 'Lys-4' methylation represents a specific tag for epigenetic transcriptional activation. Plays a central role in beta-globin locus transcription regulation by being recruited by NFE2. Plays an important role in controlling bulk H3K4me during oocyte growth and preimplantation development. Required during the transcriptionally active period of oocyte growth for the establishment and/or maintenance of bulk H3K4 trimethylation (H3K4me3), global transcriptional silencing that preceeds resumption of meiosis, oocyte survival and normal zygotic genome activation.

References

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Grimwood J.,et al.Nature 428:529-535(2004).
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Nagase T.,et al.DNA Res. 4:141-150(1997).
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