

(Mouse) Ehmt2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP21266a

Product Information

Application	WB, E
Primary Accession	Q9Z148
Reactivity	Human, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB51323
Calculated MW	138039

Additional Information

Gene ID	110147
Other Names	Histone-lysine N-methyltransferase EHMT2, 211-, Euchromatic histone-lysine N-methyltransferase 2, HLA-B-associated transcript 8, Histone H3-K9 methyltransferase 3, H3-K9-HMTase 3, Protein G9a, Ehmt2, Bat8, G9a, Ng36
Target/Specificity	This Mouse Ehmt2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 227-259 amino acids from the N-terminal region of Mouse Ehmt2.
Dilution	WB~~1:1000 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	(Mouse) Ehmt2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Ehmt2
Synonyms	Bat8, G9a, Ng36
Function	Histone methyltransferase that specifically mono- and dimethylates 'Lys-9' of histone H3 (H3K9me1 and H3K9me2, respectively) in euchromatin.

H3K9me represents a specific tag for epigenetic transcriptional repression by recruiting HP1 proteins to methylated histones (PubMed:[11316813](#), PubMed:[12130538](#), PubMed:[15774718](#), PubMed:[18818694](#)). Also mediates monomethylation of 'Lys-56' of histone H3 (H3K56me1) in G1 phase, leading to promote interaction between histone H3 and PCNA and regulating DNA replication (PubMed:[22387026](#)). Also weakly methylates 'Lys-27' of histone H3 (H3K27me). Also required for DNA methylation, the histone methyltransferase activity is not required for DNA methylation, suggesting that these 2 activities function independently. Probably targeted to histone H3 by different DNA-binding proteins like E2F6, MGA, MAX and/or DP1. Also able to mono- and dimethylate histone H1-4 at 'Lys-26' (H1.4K26me1 and H1.4K26me2, respectively). In addition to the histone methyltransferase activity, also methylates non-histone proteins: mediates dimethylation of 'Lys-373' of p53/TP53. Also methylates CDYL, WIZ, ACIN1, DNMT1, HDAC1, ERCC6, KLF12 and itself (By similarity).

Cellular Location

Nucleus {ECO:0000250 | UniProtKB:Q96KQ7}. Chromosome {ECO:0000250 | UniProtKB:Q96KQ7}. Note=Almost excluded from nucleoli. Associates with euchromatic regions (By similarity). Does not associate with heterochromatin (By similarity) {ECO:0000250 | UniProtKB:Q96KQ7}

Tissue Location

Ubiquitous..

Background

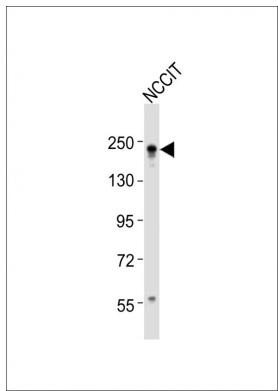
Histone methyltransferase that specifically mono- and dimethylates 'Lys-9' of histone H3 (H3K9me1 and H3K9me2, respectively) in euchromatin. H3K9me represents a specific tag for epigenetic transcriptional repression by recruiting HP1 proteins to methylated histones. Also mediates monomethylation of 'Lys-56' of histone H3 (H3K56me1) in G1 phase, leading to promote interaction between histone H3 and PCNA and regulating DNA replication. Also weakly methylates 'Lys-27' of histone H3 (H3K27me). Also required for DNA methylation, the histone methyltransferase activity is not required for DNA methylation, suggesting that these 2 activities function independently. Probably targeted to histone H3 by different DNA-binding proteins like E2F6, MGA, MAX and/or DP1. May also methylate histone H1. In addition to the histone methyltransferase activity, also methylates non-histone proteins: mediates dimethylation of 'Lys-373' of p53/TP53. Also methylates CDYL, WIZ, ACIN1, DNMT1, HDAC1, ERCC6, KLF12 and itself.

References

Tachibana M., et al. Genes Dev. 16:1779-1791(2002).
Xie T., et al. Genome Res. 13:2621-2636(2003).
Church D.M., et al. PLoS Biol. 7:E1000112-E1000112(2009).
Brown S.E., et al. Mamm. Genome 12:916-924(2001).
Tachibana M., et al. J. Biol. Chem. 276:25309-25317(2001).

Images

Anti-Ehmt2 Antibody (N-term) at 1:2000 dilution + NCCIT whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 138 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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