

# (Mouse) Ehmt2 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP21305c

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">Q9Z148</a>
<b>Reactivity</b>	Human, Rat, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB52371
<b>Calculated MW</b>	138039

## Additional Information

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<b>Gene ID</b>	110147
<b>Other Names</b>	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
<b>Target/Specificity</b>	This Mouse Ehmt2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 589-623 amino acids from the Central region of Mouse Ehmt2.
<b>Dilution</b>	WB~~1:1000 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	(Mouse) Ehmt2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	Ehmt2
<b>Synonyms</b>	Bat8, G9a, Ng36
<b>Function</b>	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

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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

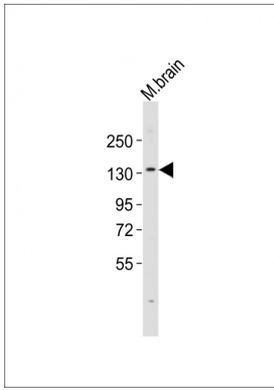
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Xie T.,et al.Genome Res. 13:2621-2636(2003).  
Church D.M.,et al.PLoS Biol. 7:E1000112-E1000112(2009).  
Brown S.E.,et al.Mamm. Genome 12:916-924(2001).  
Tachibana M.,et al.J. Biol. Chem. 276:25309-25317(2001).

## Images

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Anti-Ehmt2 Antibody (Center)at 1:1000 dilution + mouse brain 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.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.