

Rabbit EHMT2 Polyclonal Antibody | anti-EHMT2 antibody

EHMT2 Antibody

CATALOG # AAA326152	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

EHMT2; Polyclonal Antibody; EHMT2 Antibody; Ankyrin repeat containing protein; Bat 8; Bat8; C6orf30; DKFZp686H08213; EHMT 2; Ehmt2; EHMT2_HUMAN; Euchromatic histone lysine methyltransferase 2; Euchromatic histone lysine N methyltransferase 2; Euchromatic histone-lysine N-methyltransferase 2; FLJ35547; G 9a; G9 a; G9a protein; G9A; G9A histone methyltransferase; GAT8; H3 K9 HMTase 3; H3-K9-HMTase 3; Histone H3 K9 methyltransferase 3; Histone H3 K9 methyltransferase3; Histone H3-K9 methyltransferase 3; Histone lysine N methyltransferase; Histone lysine N methyltransferase EHMT2; H3 lysine 9 specific 3; H3 lysine 9 specific3; Histone-lysine N-methyltransferase EHMT2; HLA B associated transcript 8; HLA-B-associated transcript 8; KMT 1C; KMT1 C; Lysine N methyltransferase 1C; Lysine N-methyltransferase 1C; NG 36; NG36; Protein G9a; anti-EHMT2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	EHMT2 antibody detects endogenous levels of total EHMT2
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1233
Applicable Applications for anti-EHMT2 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human EHMT2
Subcellular Location	Nucleus. Chromosome. Associates with euchromatic regions. Does not associate with heterochromatin.
Tissue Specificity	Expressed in all tissues examined, with high levels in fetal liver, thymus, lymph node, spleen and peripheral blood leukocytes and lower level in bone marrow.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
AAA326152 at 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of Hela whole cell lysates, using EHMT2 Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-EHMT2 antibody

Description: G9a, also known as Euchromatic histone-lysine N-methyltransferase 2 (EHMT2), is a member of a family of histone lysine methyltransferases, each of which contains a conserved catalytic SET domain originally identified in Drosophila Su[var]3-9, Enhancer of zeste, and Trithorax proteins (1). Recombinant G9a can mono-, di- and tri-methylate histone H3 on Lys9 and Lys27 in vitro (1, 2). However, in vivo G9a forms a complex with GLP, a G9a-related histone methyltransferase, and together these proteins function as the major euchromatic histone H3 Lys9 mono- and di-methyltransferases, creating transcriptionally repressive marks that facilitate gene silencing (3, 4). G9a methylates itself on Lys165, a modification that regulates the association of HP1 repressor proteins with the G9a/GLP complex (5). The G9a/GLP complex also contains Wiz, a zinc finger protein that is required for G9a/GLP hetero-dimerization and complex stability (6). Wiz contains two CtBP co-repressor binding sites, which mediate the association of the G9a/GLP with the CtBP co-repressor complex (6). In addition, G9a and GLP are components of other large transcriptional co-repressor complexes, such as those involving E2F6 and CDP/cut (7-9). G9a interacts with DNMT1, and both proteins are required for methylation of DNA and histone H3 (Lys9) at replication foci, providing a functional link between histone H3 Lys9 and CpG methylation during DNA replication (10). G9a activity is critical for meiotic prophase progression, as mutant mice deficient in germ line G9a show a large loss of mature gametes (11). In addition, G9a facilitates increased global levels of di-methyl histone H3 (Lys9) during hypoxic stress and increased G9a expression is associated with hepatocellular carcinoma (12).

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. 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.

Subunit Structure: Heterodimer; heterodimerizes with EHMT1/GLP. Interacts with GF11B and WIZ. Part of the E2F6.com-1 complex in G0 phase composed of E2F6, MGA, MAX, TFDP1, CBX3, BAT8, EHMT1, RING1, RNF2, MBLR, L3MBTL2 and YAF2. Part of a complex composed of TRIM28, HDAC1, HDAC2 and EHMT2. Interacts with UHRF1. Interacts with CDYL. Interacts with REST only in the presence of CDYL. Part of a complex containing at least CDYL, REST, WIZ, SETB1, EHMT1 and EHMT2.

Post-translational Modifications: Methylated at Lys-185; automethylated.

Similarity: The SET domain mediates interaction with WIZ. The ANK repeats bind H3K9me1 and H3K9me2. In the pre-SET domain, Cys residues bind 3 zinc ions that are arranged in a triangular cluster; some of these Cys residues contribute to the binding of two zinc ions within the cluster. Belongs to the class V-like SAM-binding methyltransferase superfamily. Histone-lysine methyltransferase family. Suvar3-9 subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	574957264
NCBI GeneID	10919
NCBI Accession #	NP_001276342.1
NCBI GenBank Nucleotide #	NM_001289413.1
UniProt Accession #	Q96KQ7; Q14349; Q5JP83; Q5JQ92; Q5JQA1; Q5JQG3; Q6PK06; Q96MH5; Q96QD0; Q9UQL8; Q9Y331; BOUZY2

Molecular Weight	Observed: 132 kDa Predicted: 133 kDa
NCBI Official Full Name	histone-lysine N-methyltransferase EHMT2 isoform c
NCBI Official Synonym Full Names	euchromatic histone lysine methyltransferase 2
NCBI Official Symbol	EHMT2
NCBI Official Synonym Symbols	G9A; BAT8; GAT8; NG36; KMT1C; C6orf30
NCBI Protein Information	histone-lysine N-methyltransferase EHMT2
UniProt Protein Name	Histone-lysine N-methyltransferase EHMT2
UniProt Gene Name	EHMT2
UniProt Synonym Gene Names	BAT8; C6orf30; G9A; KMT1C; NG36; H3-K9-HMTase 3

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/ehmt2-antibody-immunohistochemistry-western-blot-elisa/326152>