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KD-Validated Anti-EHMT2 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI2322

Product Information

Application	WB, FC, ICC
Primary Accession	Q96KQ7
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB825
Calculated MW	132370
Gene Name	EHMT2
Aliases	Euchromatic Histone Lysine Methyltransferase 2; KMT1C; G9A; C6orf30; BAT8; Euchromatic Histone-Lysine N-Methyltransferase 2; Histone-Lysine N-Methyltransferase EHMT2; Histone H3-K9 Methyltransferase 3; HLA-B Associated Transcript 8; Lysine N-Methyltransferase 1C; H3-K9-HMTase 3; Em:AF134726.3; NG36/G9a; NG36; Histone-Lysine N-Methyltransferase, H3 Lysine-9 Specific 3; Chromosome 6 Open Reading Frame 30; Ankyrin Repeat-Containing Protein; G9A Histone Methyltransferase; HLA-B-Associated Transcript 8; EC 2.1.1.367; Protein G9a; EC 2.1.1.-; GAT8
Immunogen	A synthesized peptide derived from human EHMT2

Additional Information

Gene ID	10919
Other Names	Histone-lysine N-methyltransferase EHMT2, 2.1.1.-, 2.1.1.367, Euchromatic histone-lysine N-methyltransferase 2, HLA-B-associated transcript 8, Histone H3-K9 methyltransferase 3, H3-K9-HMTase 3, Lysine N-methyltransferase 1C, Protein G9a, EHMT2, BAT8, C6orf30, G9A, KMT1C, NG36

Protein Information

Name	EHMT2
Synonyms	BAT8, C6orf30, G9A, KMT1C, 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:20084102). 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) (PubMed:11316813). 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) (PubMed:19144645). In addition to the histone methyltransferase activity, also methylates non-histone proteins: mediates dimethylation of 'Lys-373' of p53/TP53 (PubMed:20118233). Also methylates CDYL, WIZ, ACIN1, DNMT1, HDAC1, ERCC6, KLF12 and itself (PubMed:18438403).
Cellular Location	Nucleus. Chromosome. Note=Associates with euchromatic regions (PubMed:11316813). Does not associate with heterochromatin (PubMed:11316813).
Tissue Location	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

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