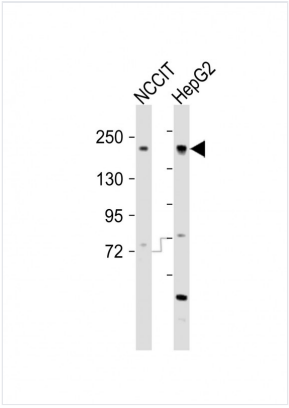
EHMT2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Ehmt2, Polyclonal Antibody
Full Product Name	(Mouse) Ehmt2 Antibody (N-term)
Product Gene Name	anti-Ehmt2 antibody
Product Synonym 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
Clonality	Polyclonal
Isotype	Rabbit Ig
Host	Rabbit
Species Reactivity	Human
Form/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.
Purity/Purification	Purified Rabbit Polyclonal Antibody (Pab)
Concentration	Vial Concentration: 0.5 (lot specific)
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.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Antibody/Peptide Pairs	Ehmt2 peptide (MBS9229882) is used for blocking the activity of Ehmt2 antibody (MBS9212554)
Molecular Weight	138039
3D Structure	ModBase 3D Structure for Q9Z148
Antigen Source	HUMAN
Product Categories/Family for anti-Ehmt2 antibody	Stem Cells
Applications Tested/Suitable for anti-Ehmt2 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-Ehmt2 antibody	WB~~1:2000
Related Product Information for anti-Ehmt2 antibody	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.

Product References and Citations for anti-Ehmt2 antibody	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).
Other Notes	Small volumes of anti-Ehmt2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for Ehmt2 purchase	MBS9212554 is an antibody targeting Ehmt2. Also known as (Mouse) Ehmt2 Antibody (N-term). Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-Ehmt2 antibody
All lanes : Anti-Ehmt2 Antibody (N-term) at 1:2000 dilutionLane 1: NCCIT whole cell lysatesLane 2: HepG2 whole cell lysatesLysates/proteins at 20 ug per lane.SecondaryGoat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilutionPredicted band size : 138 kDaBlocking/Dilution buffer: 5% NFDM/TBST.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Ehmt2. It may not necessarily be applicable to this product.

NCBI GI #	557440749
NCBI GeneID	110147
NCBI Accession #	NP_001273502.1
UniProt Primary Accession #	Q9Z148
UniProt Secondary Accession #	Q6PE08; Q8K4R6; Q8K4R7; Q9Z149; A2CG75
UniProt Related Accession #	Q9Z148
GenBank Nucleotide #	NM_001286573.1
NCBI Official Full Name	histone-lysine N-methyltransferase EHMT2 isoform c
NCBI Official Synonym Full Names	euchromatic histone lysine N-methyltransferase 2
NCBI Official Symbol	Ehmt2
NCBI Official Synonym Symbols	G9a; Bat8; NG36; KMT1C; D17Ertd710e
UniProt Protein Name	Histone-lysine N-methyltransferase EHMT2
UniProt Synonym Protein Names	Euchromatic histone-lysine N-methyltransferase 2; HLA-B-associated transcript 8; Histone H3-K9 methyltransferase 3; H3-K9-HMTase 3; Protein G9a
Protein Family	Histone-lysine N-methyltransferase
UniProt Gene Name	Ehmt2

UniProt Synonym Gene Names	Bat8; G9a; Ng36; H3-K9-HMTase 3
UniProt Entry Name	EHMT2_MOUSE
NCBI Protein Information	histone-lysine N-methyltransferase EHMT2
UniProt Comments for Ehmt2	EHMT2: Histone methyltransferase. Preferentially methylates 'Lys-9' of histone H3 and 'Lys-27' of histone H3 (in vitro). H3 'Lys-9' methylation represents a specific tag for epigenetic transcriptional repression by recruiting HP1 proteins to methylated histones. Probably targeted to histone H3 by different DNA-binding proteins like E2F6, MGA, MAX and/or DP1. Also methylates histone H1. Belongs to the histone-lysine methyltransferase family. Suvar3-9 subfamily. Part of the E2F6.com-1 complex in G0 phase composed of E2F6, MGA, MAX, TFDP1, CBX3, BAT8, EUHMTASE1, RING1, RNF2, MBLR, L3MBTL2 and YAF2. Interacts with GFI1B, WIZ and EHMT1. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Methyltransferase, protein lysine; Methyltransferase; EC 2.1.1.43; Amino Acid Metabolism - lysine degradation Cellular Component: nucleoplasm; intermediate filament cytoskeleton; intracellular membrane-bound organelle; nuclear chromatin; nucleolus; chromosome; nucleus Molecular Function: methyltransferase activity; trimethylamine methyltransferase activity; monomethylamine methyltransferase activity; tRNA (cytosine)-methyltransferase activity; RNA methyltransferase activity; rRNA (cytosine-C5-967)-methyltransferase activity; rRNA (uridine) methyltransferase activity; N-methyltransferase activity; tRNA (guanine) methyltransferase activity; histone-lysine N-methyltransferase activity; histone lysine N-methyltransferase activity (H3-K27 specific); rRNA (adenine-N6,N6-)-dimethyltransferase activity; arginine N-methyltransferase activity; selenocysteine methyltransferase activity; protein-arginine N-methyltransferase activity; methanol-specific methylcobalamin:coenzyme M methyltransferase activity; tRNA (guanine-N2-)-methyltransferase activity; dimethylamine methyltransferase activity; protein methyltransferase activity; 2-polyprenyl-6-methoxy-1,4-benzoquinone methyltransferase activity; transferase activity; hydroxyneurosporene-O-methyltransferase activity; rRNA (uridine-2'-O-)-methyltransferase activity; tRNA (uracil) methyltransferase activity; rRNA (adenine) methyltransferase activity; histone lysine N-methyltransferase activity (H3-K9 specific); C-methyltransferase activity; cobalt-precorrin-6B C5-methyltransferase activity; cobalt-precorrin-3 C17-methyltransferase activity; 1-phenanthrol methyltransferase activity; zinc ion binding; metal ion binding; S-methyltransferase activity; lysine N-methyltransferase activity; DNA-methyltransferase activity; tRNA (cytosine-5-)-methyltransferase activity; C-terminal protein carboxyl methyltransferase activity; tRNA (adenine)-methyltransferase activity; rRNA (cytosine) methyltransferase activity; cobalt-precorrin-7 C15-methyltransferase activity; protein-arginine N5-methyltransferase activity; rRNA methyltransferase activity; p53 binding; protein-leucine O-methyltransferase activity; demethylmenaquinone methyltransferase activity; rRNA (adenine-N6-)-methyltransferase activity; tRNA methyltransferase activity; rRNA (guanine) methyltransferase activity; methylarsonite methyltransferase activity; protein binding; mRNA methyltransferase activity; methylamine-specific methylcobalamin:coenzyme M methyltransferase activity; tRNA (guanine-N1-)-methyltransferase activity; cobalt-precorrin-5B C1-methyltransferase activity; protein-lysine N-methyltransferase activity; O-methyltransferase activity; tRNA (adenine-57, 58-N(1)-) methyltransferase activity; tRNA (adenine-N1-)-methyltransferase activity Biological Process: methylation; synaptonemal complex assembly; chromatin modification; negative regulation of transcription from RNA polymerase II promoter; germ cell development; peptidyl-lysine methylation; regulation of transcription from RNA polymerase II promoter; histone methylation; organ growth; cytosine methylation within a CG sequence; fertilization; long-term memory; peptidyl-lysine di-methylation; DNA methylation; regulation of histone H3-K4 methylation; regulation of histone H3-K9 methylation; spermatid development; regulation of DNA replication; histone H3-K9 methylation
Research Articles on Ehmt2	**1.** Results show that G9a acts positively to promote tumor formation.
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