

# EHMT2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP5526a

### **Product Information**

**Application** WB, FC, E **Primary Accession Q96KQ7** Other Accession NP 006700.3 Reactivity Human Host Rabbit Clonality Polyclonal Isotype Rabbit IgG **Clone Names** RB21114 Calculated MW 132370 159-186 **Antigen Region** 

### **Additional Information**

**Gene ID** 10919

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, Lysine N-methyltransferase 1C, Protein

G9a, EHMT2, BAT8, C6orf30, G9A, KMT1C, NG36

Target/Specificity This EHMT2 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 159-186 amino acids from the

N-terminal region of human EHMT2.

**Dilution** WB~~1:1000 FC~~1:10~50 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** EHMT2 Antibody (N-term) is for research use only and not for use in

diagnostic or therapeutic procedures.

### **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. 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.

**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

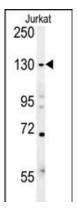
# **Background**

A cluster of genes, BAT1-BAT5, has been localized in the vicinity of the genes for TNF alpha and TNF beta. This gene is found near this cluster; it was mapped near the gene for C2 within a 120-kb region that included a HSP70 gene pair. These genes are all within the human major histocompatibility complex class III region. This gene was thought to be two different genes, NG36 and G9a, adjacent to each other but a recent publication shows that there is only a single gene. The protein encoded by this gene is thought to be involved in intracellular protein-protein interaction.

## References

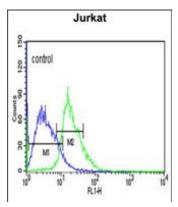
Goyama, S., et al. Leukemia 24(1):81-88(2010) de Vogel, S., et al. Cancer Epidemiol. Biomarkers Prev. 18(11):3086-3096(2009) Chen, X., et al. J. Biol. Chem. 284(41):27857-27865(2009)

# **Images**



EHMT2 Antibody (N-term) (Cat. #AP5526a) western blot analysis in Jurkat cell line lysates (15ug/lane). This demonstrates the EHMT2 antibody detected the EHMT2 protein (arrow).

EHMT2 Antibody (N-term) (Cat. #AP5526a) flow cytometric analysis of Jurkat cells (right histogram) compared to a negative control cell (left



histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

# **Citations**

• Inhibition of Euchromatic Histone Lysine Methyltransferase 2 (EHMT2) Suppresses the Proliferation and Invasion of Cervical Cancer Cells.

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