

EHMT2 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV11145**Specification**

EHMT2 Antibody - Product Information

Application	WB
Primary Accession	O96KQ7
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	132370

EHMT2 Antibody - Additional Information**Gene ID** 10919

Positive Control	Western Blot: Various cell lysates
Application & Usage	Western blot: 1:500 - 1:2000, IHC: 1:50 - 1:200.

Other Names

BAT8, C6orf30, DKFZp686H08213, FLJ35547, G9A, KMT1C, NG36, NG3

Target/Specificity

EHMT2

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µg of antibody in 100 µl PBS containing 0.02% sodium azide, 50% glycerol, pH 7.3

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

EHMT2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

EHMT2 Antibody - 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. Recruited to the promoters of target genes through interaction with transcriptional repressor MSX1, leading to the inhibition of myoblast differentiation via transcriptional repression of differentiation factors (By similarity).

Cellular Location

Nucleus. Chromosome. Note=Associates with euchromatic regions (PubMed:11316813). Does not associate with heterochromatin (PubMed:11316813).

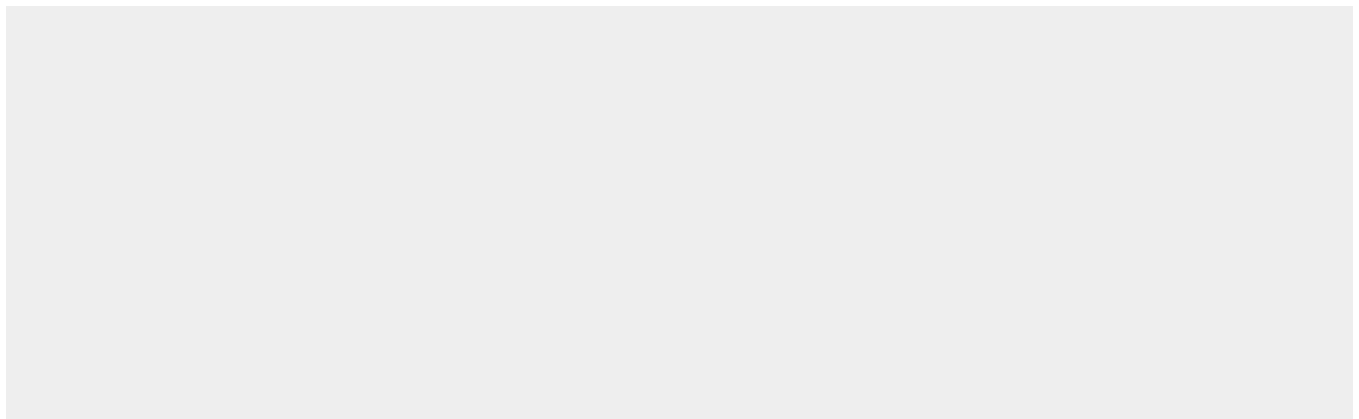
Tissue Location

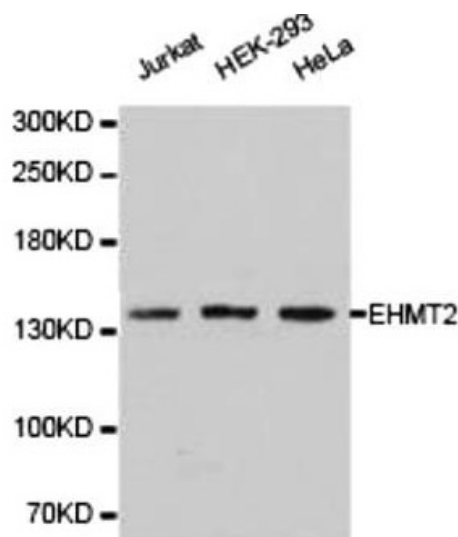
Expressed in all tissues examined, with high levels in fetal liver, thymus, lymph node, spleen and peripheral blood leukocytes and lower level in bone marrow

EHMT2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

EHMT2 Antibody - Images



WB of various cell extract with EHMT2 pAb.

EHMT2 Antibody - Background

G9a, also known as Euchromatic histone lysine N-methyltransferase 2 (EHMT2), is a member of a family of histone lysine methyltransferases. Recombinant G9a can mono, di and trimethylate histone H3 on Lys9 and Lys27 in vitro. 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 dimethyltransferases, creating transcriptionally repressive marks that facilitate gene silencing. G9a methylates itself on Lys165, a modification that regulates the association of HP1 repressor proteins with the G9a/GLP complex. The G9a/GLP complex also contains Wiz, a zinc finger protein that is required for G9a/GLP heterodimerization and complex stability. Wiz contains two CtBP corepressor binding sites, which mediate the association of the G9a/GLP with the CtBP corepressor complex. In addition, G9a and GLP are components of other large transcriptional corepressor complexes, such as those involving E2F6 and CDP/cut. 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. G9a activity is critical for meiotic prophase progression, as mutant mice deficient in germ line G9a show a large loss of mature gametes. In addition, G9a facilitates increased global levels of dimethyl histone H3 (Lys9) during hypoxic stress and increased G9a expression is associated with hepatocellular carcinoma.