

Product datasheet for **TA327026**

EHMT2/G9A (EHMT2) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IP, WB
Recommended Dilution:	WB: 1:500-1:2000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant protein of human EHMT2
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	euchromatic histone lysine methyltransferase 2
Database Link:	NP_006700 Entrez Gene 110147 Mouse Entrez Gene 361798 Rat Entrez Gene 10919 Human Q96KQ7



[View online »](#)

Background:

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. Recombinant G9a can mono-, di- and tri-methylate 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 di-methyltransferases, 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 hetero-dimerization and complex stability. Wiz contains two CtBP co-repressor binding sites, which mediate the association of the G9a/GLP with the CtBP co-repressor complex. In addition, G9a and GLP are components of other large transcriptional co-repressor 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 di-methyl histone H3 (Lys9) during hypoxic stress and increased G9a expression is associated with hepatocellular carcinoma.

Synonyms:

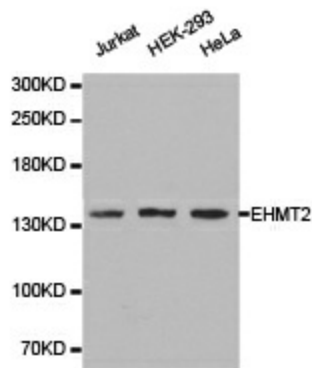
BAT8; C6orf30; G9A; GAT8; KMT1C; NG36

Protein Families:

Druggable Genome

Protein Pathways:

Lysine degradation

Product images:

Western blot analysis of extracts of various cell lines, using EHMT2 antibody.