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KMT1C / G9a / BAT8 Antibody (Center) Blocking peptide

Synthetic peptide
Catalog # BP1197c

Specification

KMT1C / G9a / BAT8 Antibody (Center) Blocking peptide - Product Information

Primary Accession Q96KQ7

KMT1C / G9a / BAT8 Antibody (Center) Blocking peptide - 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
The synthetic peptide sequence used to generate the antibody AP1197c was selected from the Center region of human G9a . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

KMT1C / G9a / BAT8 Antibody (Center) Blocking peptide - 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

KMT1C / G9a / BAT8 Antibody (Center) Blocking peptide - Protocols

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

- Blocking Peptides

KMT1C / G9a / BAT8 Antibody (Center) Blocking peptide - Images

KMT1C / G9a / BAT8 Antibody (Center) Blocking peptide - Background

A cluster of genes, BAT1-BAT5, has been localized in the vicinity of the genes for TNF alpha and TNF beta. The gene for G9a 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. The protein encoded by this gene is thought to be involved in intracellular protein-protein interaction. There are three alternatively spliced transcript variants of this gene but only two are fully described.

KMT1C / G9a / BAT8 Antibody (Center) Blocking peptide - References

Tachibana, M., et al., Genes Dev. 16(14):1779-1791 (2002).Brown, S.E., et al., Mamm. Genome 12(12):916-924 (2001).Spies, T., et al., Proc. Natl. Acad. Sci. U.S.A. 86(22):8955-8958 (1989).Milner, C.M., et al., Biochem. J. 290 (Pt 3), 811-818 (1993).