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(Mouse) Ehmt2 Blocking Peptide (Center)

Synthetic peptide
Catalog # BP21305c

Specification

(Mouse) Ehmt2 Blocking Peptide (Center) - Product Information

Primary Accession Q9Z148

(Mouse) Ehmt2 Blocking Peptide (Center) - Additional Information

Gene ID 110147

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, Protein G9a, Ehmt2, Bat8, G9a, Ng36

Target/Specificity
The synthetic peptide sequence is selected from aa 589-603 of HUMAN Ehmt2

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.

(Mouse) Ehmt2 Blocking Peptide (Center) - Protein Information

Name Ehmt2

Synonyms Bat8, G9a, 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 (PubMed:22629437).

Cellular Location
Nucleus {ECO:0000250|UniProtKB:Q96KQ7}. Chromosome {ECO:0000250|UniProtKB:Q96KQ7}. Note=Almost excluded form nucleoli. Associates with euchromatic regions (By similarity). Does not associate with heterochromatin (By similarity) {ECO:0000250|UniProtKB:Q96KQ7}

Tissue Location
Ubiquitous..

(Mouse) Ehmt2 Blocking Peptide (Center) - Protocols

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

- Blocking Peptides

(Mouse) Ehmt2 Blocking Peptide (Center) - Images

(Mouse) Ehmt2 Blocking Peptide (Center) - Background

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.

(Mouse) Ehmt2 Blocking Peptide (Center) - References

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).