



# **EHMT2 Blocking Peptide (Center)**

Synthetic peptide Catalog # BP21098a

## **Specification**

**EHMT2 Blocking Peptide (Center) - Product Information** 

Primary Accession O96KO7
Other Accession O9Z148

EHMT2 Blocking Peptide (Center) - 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 is selected from aa 361-375 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.

EHMT2 Blocking Peptide (Center) - Protein Information

Name EHMT2

Synonyms BAT8, C6orf30, G9A, KMT1C,

# 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.

# EHMT2 Blocking Peptide (Center) - References

Brown S.E.,et al.Mamm. Genome 12:916-924(2001).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Xie T.,et al.Genome Res. 13:2621-2636(2003).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Hirakawa M.,et al.Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.



### 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. Does not associate with heterochromatin

### **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 Blocking Peptide (Center) - Protocols

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

• Blocking Peptides