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Dnmt3b Antibody Blocking Peptide
Synthetic peptide
Catalog # BP1035a

Specification

Dnmt3b Antibody Blocking Peptide - Product Information

Primary Accession Q9UBC3

Dnmt3b Antibody Blocking Peptide - Additional Information

Gene ID 1789

Other Names
DNA (cytosine-5)-methyltransferase 3B, Dnmt3b, DNA methyltransferase HsaIIIB, DNA MTase HsaIIIB, MHsaIIIB, DNMT3B

Target/Specificity
The synthetic peptide sequence is selected from aa 403~417 of human Dnmt3b.

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.

Dnmt3b Antibody Blocking Peptide - Protein Information

Name DNMT3B

Function
Required for genome-wide de novo methylation and is essential for the establishment of DNA methylation patterns during development. DNA methylation is coordinated with methylation of histones. May preferentially methylates nucleosomal DNA within the nucleosome core region. May function as transcriptional co-repressor by associating with CBX4 and independently of DNA methylation. Seems to be involved in gene silencing (By similarity). In association with DNMT1 and via the recruitment of CTCFL/BORIS, involved in activation of BAG1 gene expression by modulating dimethylation of promoter histone H3 at H3K4 and H3K9. Isoforms 4 and 5 are probably not functional due to the deletion of two conserved methyltransferase motifs. Functions as a transcriptional corepressor by associating with ZHX1. Required for DUX4 silencing in somatic cells (PubMed:27153398).

Cellular Location
Nucleus

Tissue Location
Ubiquitous; highly expressed in fetal liver, heart, kidney, placenta, and at lower levels in spleen, colon, brain, liver, small intestine, lung, peripheral blood mononuclear cells, and skeletal muscle. Isoform 1 is expressed in all tissues except brain, skeletal muscle and PBMC, 3 is ubiquitous, 4 is expressed in all tissues except brain, skeletal muscle, lung and prostate and 5 is detectable only in testis and at very low level in brain and prostate

Dnmt3b Antibody Blocking Peptide - Protocols

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

- Blocking Peptides

Dnmt3b Antibody Blocking Peptide - Images

Dnmt3b Antibody Blocking Peptide - Background

CpG methylation is an epigenetic modification that is important for embryonic development, imprinting, and X-chromosome inactivation. Studies in mice have demonstrated that DNA methylation is required for mammalian development. Dnmt3b is a DNA methyltransferase which is thought to function in de novo methylation, rather than maintenance methylation. The protein localizes primarily to the nucleus and its expression is developmentally regulated. Mutations in this gene cause the immunodeficiency-centromeric instability-facial anomalies (ICF)syndrome.

Dnmt3b Antibody Blocking Peptide - References

Okano, M., et al., Cell 99(3):247-257 (1999).Yin, B., et al., Zhongguo Yi Xue Ke Xue Yuan Xue Bao 21(6):431-438 (1999).Okano, M., et al., Nat. Genet. 19(3):219-220 (1998).