

DNMT1 Blocking Peptide (N-term)

Synthetic peptide

Catalog # BP20862a

Specification

DNMT1 Blocking Peptide (N-term) - Product Information

Primary Accession

[P26358](#)**DNMT1 Blocking Peptide (N-term) - Additional Information**

Gene ID 1786

Other Names

DNA (cytosine-5)-methyltransferase 1, Dnmt1, CXXC-type zinc finger protein 9, DNA methyltransferase Hsa1, DNA MTase Hsa1, MHsa1, MCMT, DNMT1, AIM, CXXC9, DNMT

Target/Specificity

The synthetic peptide sequence is selected from aa 363-376 of HUMAN DNMT1

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.

DNMT1 Blocking Peptide (N-term) - Protein Information

Name DNMT1

Synonyms AIM, CXXC9, DNMT

Function

Methylates CpG residues. Preferentially methylates hemimethylated DNA. Associates with DNA replication sites in S phase maintaining the methylation pattern in the newly synthesized strand, that is essential for epigenetic inheritance. Associates with chromatin during G2 and M phases to maintain DNA methylation independently of replication. It is responsible for maintaining methylation patterns established in development. DNA methylation is coordinated with methylation of histones. Mediates transcriptional repression by direct binding to HDAC2. In association with DNMT3B 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. Probably forms a corepressor complex required for activated KRAS- mediated promoter hypermethylation and transcriptional silencing of tumor suppressor genes (TSGs) or other tumor-related genes in colorectal cancer (CRC) cells (PubMed: <http://www.uniprot.org/citations/24623306> target="_blank">24623306). Also required to maintain a transcriptionally repressive state of

genes in undifferentiated embryonic stem cells (ESCs) (PubMed:24623306). Associates at promoter regions of tumor suppressor genes (TSGs) leading to their gene silencing (PubMed:24623306). Promotes tumor growth (PubMed:24623306).

Cellular Location

Nucleus. Note=Localized to the perinucleolar region.

Tissue Location

Ubiquitous; highly expressed in fetal tissues, heart, kidney, placenta, peripheral blood mononuclear cells, and expressed at lower levels in spleen, lung, brain, small intestine, colon, liver, and skeletal muscle. Isoform 2 is less expressed than isoform 1.

DNMT1 Blocking Peptide (N-term) - Protocols

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

- [Blocking Peptides](#)

DNMT1 Blocking Peptide (N-term) - Images**DNMT1 Blocking Peptide (N-term) - Background**

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DNMT1 Blocking Peptide (N-term) - References

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Grimwood J.,et al.Nature 428:529-535(2004).
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