

# Dnmt1 Rabbit mAb

Catalog # AP78995

## Product Information

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|--------------------------|--|
| <b>Application</b>       | WB, IHC-P, IF, ICC                             |
| <b>Primary Accession</b> | <a href="#">P26358</a>                         |
| <b>Reactivity</b>        | Rat, Human, Mouse                              |
| <b>Host</b>              | Rabbit   |
| <b>Clonality</b>         | Monoclonal Antibody                            |
| <b>Isotype</b>           | IgG  |
| <b>Conjugate</b>         | Unconjugated                                   |
| <b>Immunogen</b>         | A synthesized peptide derived from human Dnmt1 |
| <b>Purification</b>      | Affinity Chromatography                        |
| <b>Calculated MW</b>     | 183165   |

## Additional Information

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|--------------------|--|
| <b>Gene ID</b>     | 1786   |
| <b>Other Names</b> | DNMT1  |
| <b>Dilution</b>    | WB~~1/500-1/1000 IHC-P~~N/A IF~~1:50~200 ICC~~N/A  |
| <b>Format</b>      | Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol. |
| <b>Storage</b>     | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.           |

## Protein Information

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|-----------------|---|
| <b>Name</b>     | DNMT1   |
| <b>Synonyms</b> | AIM, CXXC9, DNMT  |
| <b>Function</b> | 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:[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**

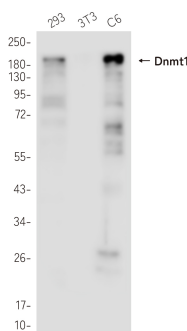
Nucleus. Note=Localized to the perinucleolar region.

**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.

## Images

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