

Dnmt1 Rabbit mAb
Catalog # AP75367**Specification****Dnmt1 Rabbit mAb - Product Information**

Application	WB, IP, ICC
Primary Accession	P26358
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	183165

Dnmt1 Rabbit mAb - Additional Information**Gene ID** 1786**Other Names**
DNMT1**Dilution**
WB~~1/500-1/1000
IP~~N/A
ICC~~N/A**Format**
50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.**Storage**
Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.**Dnmt1 Rabbit mAb - Protein Information****Name** DNMT1 {ECO:0000303|Ref.3, ECO:0000312|HGNC:HGNC:2976}**Function**

DNA methyltransferase that methylates CpG residues (PubMed:17200670, PubMed:18754681, PubMed:21745816, PubMed:26070743). Preferentially methylates hemimethylated DNA (PubMed:21745816, PubMed:26070743). Associates with DNA replication sites in S phase maintaining the methylation pattern in the newly synthesized strand, that is essential for epigenetic inheritance (PubMed:17200670, PubMed:21745816). Associates with chromatin during G2 and M phases to maintain DNA methylation independently of replication (PubMed:<a

[21745816](http://www.uniprot.org/citations/21745816)). It is responsible for maintaining methylation patterns established in development (PubMed:[21745816](http://www.uniprot.org/citations/21745816)). DNA methylation is coordinated with methylation of histones (PubMed:[16357870](http://www.uniprot.org/citations/16357870)). Mediates transcriptional repression by direct binding to HDAC2 (PubMed:[10888872](http://www.uniprot.org/citations/10888872)). 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 (PubMed:[18413740](http://www.uniprot.org/citations/18413740)). 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](http://www.uniprot.org/citations/24623306)). Also required to maintain a transcriptionally repressive state of genes in undifferentiated embryonic stem cells (ESCs) (PubMed:[24623306](http://www.uniprot.org/citations/24623306)). Associates at promoter regions of tumor suppressor genes (TSGs) leading to their gene silencing (PubMed:[24623306](http://www.uniprot.org/citations/24623306)).

Cellular Location

Nucleus. Chromosome Note=Associates with replication foci during S-phase: recruited to hemimethylated DNA sites via its RFTS domain, which specifically recognizes and binds histone H3 ubiquitinated at 'Lys-14', 'Lys-18' and 'Lys-23' (H3K14ub, H3K18ub and H3K23ub, respectively) (PubMed:29053958). Localized to the perinucleolar region (PubMed:24492612).

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 Rabbit mAb - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Dnmt1 Rabbit mAb - Images



