

Product datasheet for **TA384115**

DNMT1 Rabbit Monoclonal Antibody [Clone ID: R05-3K1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R05-3K1
Applications:	IF, IP, WB
Recommended Dilution:	WB: 1/1000 ICC/IF: 1/20-1/100 IP: 1/20
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide of human Dnmt1
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 183 kDa; Observed MW: 183 kDa
Gene Name:	DNA (cytosine-5-)-methyltransferase 1
Database Link:	Entrez Gene 1786 Human P26358



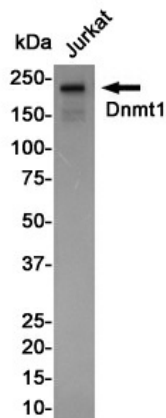
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Background:

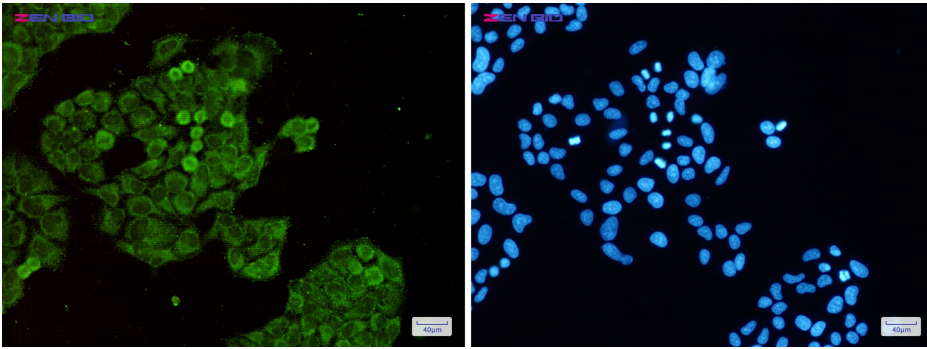
Swiss-Prot Acc.P26358.Methylates CpG residues. Preferentially methylates hemimethylated DNA. Associates with DNA replication sites in S phase maintaining the methylation pattern in the newly synthesized strand, that is essential for epigenetic inheritance. Associates with chromatin during G2 and M phases 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).

Synonyms:

AIM; CXXC9; DNMT; FLJ16293; M.Hsal; MCMT; MGC104992

Product images:

Western blot detection of Dnmt1 in Jurkat cell lysates using Dnmt1 Rabbit mAb(1:1000 diluted).Predicted band size:183KDa.Observed band size:183KDa.



Immunocytochemistry of Dnmt1 (green) in HeLa cells using Dnmt1 Rabbit mAb at dilution 1/50, and DAPI (blue)