

# Anti-DNMT / DNMT1 Antibody (aa637-650, clone 60B1220.1)

Mouse Anti Human Monoclonal Antibody Catalog # ALS17587

## **Specification**

## Anti-DNMT / DNMT1 Antibody (aa637-650, clone 60B1220.1) - Product Information

Application WB, IHC-P, IP, CHIP

Primary Accession P26358

Predicted Human, Mouse, Rabbit, Monkey, Horse

Host Mouse
Clonality Monoclonal
Isotype IgG1
Calculated MW 183165

Dilution WB~~1:1000
IHC-P~~N/A
IP~~N/A
CHIP~~N/A

Anti-DNMT / DNMT1 Antibody (aa637-650, clone 60B1220.1) - Additional Information

**Gene ID 1786** 

Alias Symbol DNMT1

**Other Names** 

DNMT1, AIM, CXXC finger protein 9, CXXC9, DNA methyltransferase 1, DNMT, DNA methyltransferase Hsal, DNA MTase Hsal, HSN1E, M.Hsal, MCMT

#### **Target/Specificity**

A synthetic peptide corresponding to amino acids 637-650 (EKDDREDKENAFKR) of human Dnmt1 (Genbank Accession No. NP 001370). It will cross react with mouse Dnmt1.

**Reconstitution & Storage** 

Protein G purified

## **Precautions**

Anti-DNMT / DNMT1 Antibody (aa637-650, clone 60B1220.1) is for research use only and not for use in diagnostic or therapeutic procedures.

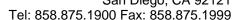
## Anti-DNMT / DNMT1 Antibody (aa637-650, clone 60B1220.1) - Protein Information

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: <a href="http://www.uniprot.org/citations/24623306" target=" blank">24623306</a>). Also required to maintain a transcriptionally repressive state of genes in undifferentiated embryonic stem cells (ESCs) (PubMed: <a href="http://www.uniprot.org/citations/24623306" target=" blank">24623306</a>). Associates at promoter regions of tumor suppressor genes (TSGs) leading to their gene silencing (PubMed: <a href="http://www.uniprot.org/citations/24623306" target=" blank">24623306</a>). Promotes tumor growth (PubMed:<a href="http://www.uniprot.org/citations/24623306" target=" blank">24623306</a>).

#### **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.

## Anti-DNMT / DNMT1 Antibody (aa637-650, clone 60B1220.1) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-DNMT / DNMT1 Antibody (aa637-650, clone 60B1220.1) - Images