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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 HsaI, DNA MTase HsaI, HSN1E, M.HsaI, 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: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.

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