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Applications

WB,IHC,IF,IP,ELISA

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Dnmt1 (ANT0042R) Rabbit mAb

CatalogNo: ANT8362 Recombinant R

Formulation: PBS,50%glycerol,0.05%Proclin 300,0.05%BSA

Quantity: 100 ug/vial

Host Species

Reactivity

Rabbit

• Human, Mouse, Rat,

Isotype

MW

IgG,Kappa

183kD (Calculated)183kD (Observed)

Recommended Dilution Ratios

IHC 1:1000-1:4000

WB 1:2000-1:10000 IF 1:200-1:1000

ELISA 1:5000-1:20000

IP 1:50-1:200

Storage

Storage* -15°C to -25°C/1 year(Do not lower than -25°C)

Basic Information

Clonality Monoclonal

Clone Number ANT0042R

Immunogen Information Specificity

Endogenous

Target Information

Gene name

DNMT1 AIM CXXC9 DNMT

Protein Name

DNA (cytosine-5)-methyltransferase 1 (Dnmt1) (EC 2.1.1.37) (CXXC-type zinc finger protein 9) (DNA methyltransferase Hsal) (DNA MTase Hsal) (M.Hsal) (MCMT)

Organism	Gene ID	UniProt ID
Human	<u>1786</u> ;	<u>P26358</u> ;
Mouse		<u>P13864</u> ;
Rat		<u>Q</u> 9Z330;

Cellular Localization **Nucleus**

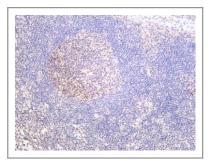
Tissue specificity Ubiquitous; highly expressed in fetal tissues, heart, kidney, placenta, peripheral blood mononuclear cells, and expressed at lower levels in spleen, lung, brain, small intestine, colon, liver, and skeletal muscle. Isoform 2 is less expressed than isoform 1.

Function

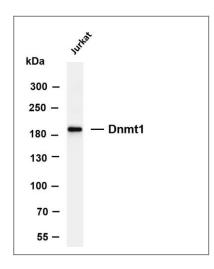
Catalytic activity:S-adenosyl-L-methionine + DNA = S-adenosyl-L-homocysteine + DNA containing 5-methylcytosine.,Function:Methylates CpG residues. Preferentially methylates hemimethylated DNA. It is responsible for maintaining methylation patterns established in development. DNA methylation is coordinated with methylation of histones. Mediates transcriptional repression by direct binding to HDAC2.,induction:Its abundance is reduced to non detectable levels at the G0 phase of the cell cycle and is dramatically induced upon entrance into the S-phase of the cell cycle.,similarity:Belongs to the C5-methyltransferase family.,similarity:Contains 1 CXXC-type zinc finger.,similarity:Contains 2 BAH domains.,subunit:Interacts with HDAC1 and with PCNA. Forms a complex with DMAP1 and HDAC2, with direct interaction. Forms also a stable complex with E2F1, BB1 and HDAC1.

Binds MBD2 and MBD3. Component of complexes containing SUV39H1. Interacts with DNMT3A and DNMT3B. Interacts with the PRC2/EED-EZH2 complex.,tissue specificity: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.,

Validation Data



Human tonsil was stained with anti-Dnmt1 (ANT0042R) rabbit antibody



Various whole cell lysates were separated by 4-8% SDS-PAGE, and the membrane was blotted with anti-Dnmt1 (ANT0042R) antibody. The HRPconjugated Goat anti-Rabbit IgG(H+L) antibody was used to detect the antibody. Lane 1: Jurkat Predicted band size: 183kDa Observed band size:

183kDa

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