



Anti-DNMT1 monoclonal antibody, clone 71C2331.2 (DCABH-3227)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Mouse monoclonal to Dnmt1 - ChIP Grade
Antigen Description	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.
Specificity	This antibody detects a ~180 kDa protein, corresponding to the apparent molecular mass of Dnmt1 on SDS-PAGE immunoblots in samples of human and mouse origin. Immunogen itself has been shown to be toxic.
Immunogen	Synthetic peptide: EKDDREDKENAFKR, corresponding to amino acids 637-650 of Human Dnmt1
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Mouse, Rat, Human, Zebrafish
Clone	71C2331.2
Purification	This antibody is affinity purified.
Conjugate	Unconjugated

Applications	IHC-P, IHC-Fr, ChIP, Flow Cyt, WB, IP
Positive Control	Human kidney (IHC), mouse ES or NIH 3T3 cell lysate (WB)
Format	Liquid
Size	100 µg
Buffer	Preservative: 0.05% Sodium Azide; Constituents: 0.05% BSA, PBS
Preservative	0.05% Sodium Azide
Storage	store at -20°C. Avoid freeze / thaw cycles.
Ship	Shipped at 4°C.

GENE INFORMATION

Gene Name	DNMT1 DNA (cytosine-5-)-methyltransferase 1 [Homo sapiens]
Official Symbol	DNMT1
Synonyms	DNMT1; DNA (cytosine-5-)-methyltransferase 1; DNMT; DNA (cytosine-5)-methyltransferase 1; CXXC9; MCMT; m.Hsa1; DNA MTase Hsa1; CXXC finger protein 9; DNA methyltransferase 1; DNA methyltransferase Hsa1; CXXC-type zinc finger protein 9; AIM; HSN1E; FLJ1629
Entrez Gene ID	1786
Protein Refseq	NP_001124295
UniProt ID	I6L9H2
Chromosome Location	19p13.2
Pathway	Cysteine and methionine metabolism, organism-specific biosystem; Cysteine and methionine metabolism, conserved biosystem; Metabolic pathways, organism-specific biosystem; Methionine degradation, organism-specific biosystem; Methionine degradation, conserved biosystem; One Carbon Metabolism, organism-specific biosystem; Regulation of retinoblastoma protein, organism-specific biosystem;
Function	DNA (cytosine-5-)-methyltransferase activity; DNA binding; DNA-methyltransferase activity; metal ion binding; protein binding; transcription factor binding; transferase activity; zinc ion binding;