



## Rabbit Anti-phospho-Dnmt1 (Tyr399) antibody

SL5296R

<b>Product Name:</b>	phospho-Dnmt1 (Tyr399)
<b>Chinese Name:</b>	磷酸化DNA甲基转移酶1抗体
<b>Alias:</b>	Dnmt1(phospho Y399); Dnmt1 (phospho Tyr399); p-Dnmt1 (Tyr399); AIM; CXXC finger protein 9; CXXC-type zinc finger protein 9; CXXC9; DNA (cytosine 5 ) methyltransferase 1; DNA (cytosine-5)-methyltransferase 1; DNA methyltransferase 1; DNA methyltransferase HsaI; DNA methyltransferase M.HsaI.; DNA MTase; DNA MTase HsaI; DNMT 1; DNMT; Dnmt1; Dnmt1; DNMT1_HUMAN; Dnmt1o; FLJ16293; HSN1E; M.HsaI; MCMT; Met1; MGC104992; mMmul; MommeD2.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Dog,Pig,Horse,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	178kDa
<b>Cellular localization:</b>	The nucleus
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated Synthesised phosphopeptide derived from human Dnmt1 around the phosphorylation site of Tyr399:ES(p-Y)EA
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>

DNA (cytosine-5-)-methyltransferase 1 has a role in the establishment and regulation of tissue-specific patterns of methylated cytosine residues. Aberrant methylation patterns are associated with certain human tumors and developmental abnormalities. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2008].

**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.

**Subunit:**

Binds to CSNK1D (By similarity). Homodimer. 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. Interacts with UBC9 and BAZ2A/TIP5.

**Subcellular Location:**

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.

**Post-translational modifications:**

Sumoylated; sumoylation increases activity.

Acetylation on multiple lysines, mainly by KAT2B/PCAF, regulates cell cycle G(2)/M transition. Deacetylation of Lys-1349 and Lys-1415 by SIRT1 increases methyltransferase activity.

Phosphorylation of Ser-154 by CDKs is important for enzymatic activity and protein stability. Phosphorylation of Ser-143 by AKT1 prevents methylation by SETD7 thereby increasing DNMT1 stability.

Methylation at Lys-142 by SETD7 promotes DNMT1 proteasomal degradation.

**DISEASE:**

Defects in DNMT1 are the cause of hereditary sensory neuropathy type 1E (HSN1E) [MIM:614116]. A neurodegenerative disorder characterized by adult onset of progressive peripheral sensory loss associated with progressive hearing impairment and

**Product Detail:**

early-onset dementia.

**Similarity:**

Belongs to the C5-methyltransferase family.

Contains 2 BAH domains.

Contains 1 CXXC-type zinc finger.

**SWISS:**

P26358

**Gene ID:**

1786

**Database links:**

[Entrez Gene: 281119](#)Cow

[Entrez Gene: 1786](#)Human

[Entrez Gene: 13433](#)Mouse

[Entrez Gene: 84350](#)Rat

[Omim: 126375](#)Human

[SwissProt: Q24K09](#)Cow

[SwissProt: P26358](#)Human

[SwissProt: P13864](#)Mouse

[SwissProt: Q9Z330](#)Rat

[Unigene: 202672](#)Human

[Unigene: 128580](#)Mouse

[Unigene: 6955](#)Rat

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**DNA 甲基转移酶-**

1在多种Tumour细胞中表达量相当高,而在正常成人细胞中则低表达,因此dnmt1基因的高表达与Tumour的发生有密切的关系。dnmt-1

对细胞周期、增殖及凋亡有一定的影响。The nucleus表达。(isoform

CRA\_a)为抑制细胞增殖、促进Apoptosis,为Tumour的基因治疗提供依据。

