

ARG55201 anti-Dnmt1 antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Dnmt1
Tested Reactivity	Hu, Ms, Rat
Tested Application	ChIP, ICC/IF, IHC, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Dnmt1
Species	Human
Immunogen	Recombinant protein of Human Dnmt1 (Swiss: P26358)
Conjugation	Un-conjugated
Alternate Names	AIM; DNMT; MCMT; CXXC9; HSN1E; ADCADN; 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

Application Instructions

Application table	Application	Dilution
	ChIP	1:20 - 1:100
	ICC/IF	1:50 - 1:200
	IHC	1:50 - 1:200
	IP	1:50 - 1:200
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	HeLa	

Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw

cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note

For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links

[GeneID: 13433 Mouse](#)

[GeneID: 1786 Human](#)

[Swiss-port # P13864 Mouse](#)

[Swiss-port # P26358 Human](#)

Gene Symbol

DNMT1

Gene Full Name

DNA (cytosine-5-)-methyltransferase 1

Background

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. [UniProt]

Research Area

Gene Regulation antibody

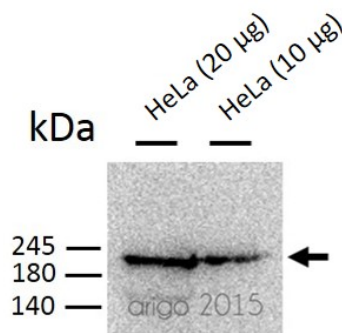
Calculated Mw

183 kDa

PTM

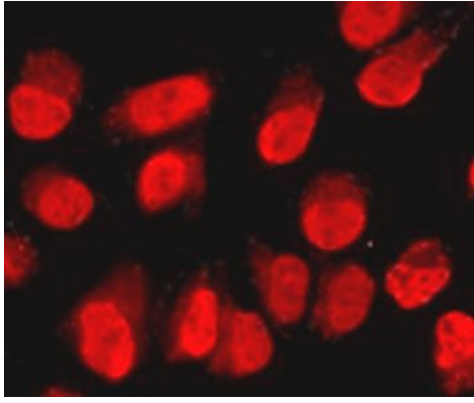
Sumoylated; sumoylation increases activity.
Acetylation on multiple lysines, mainly by KAT2B/PCAF, regulates cell cycle G(2)/M transition.
Deacetylation of Lys-1349 and Lys-1415 by SIRT1 increases methyltransferase activity.
Phosphorylation of Ser-154 by CDKs is important for enzymatic activity and protein 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.
Ubiquitinated by UHRF1; interaction with USP7 counteracts ubiquitination by UHRF1 by promoting deubiquitination and preventing degradation by the proteasome.

Images



ARG55201 anti-Dnmt1 antibody WB image

Western blot: 20 µg and 10 µg of HeLa cell lysates stained with ARG55201 anti-Dnmt1 antibody at 1:500 dilution.



ARG55201 anti-Dnmt1 antibody ICC/IF image

Immunofluorescence: A549 cells stained with ARG55201 anti-Dnmt1 antibody.