

Dnmt3a Antibody
Rabbit mAb
Catalog # AP90536

Specification

Dnmt3a Antibody - Product Information

Application	WB, IHC, FC, ICC
Primary Accession	O9Y6K1
Reactivity	Rat
Clonality	Monoclonal
Other Names	
DNMT3A2; M.HsaIIIa; Dnmt3a; MCMT; DNA methyltransferase 3a;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	101858 Da

Dnmt3a Antibody - Additional Information

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Dnmt3a
Description	Methylation of DNA at cytosine residues in mammalian cells is a heritable, epigenetic modification that is critical for proper regulation of gene expression, genomic imprinting and development. Three families of mammalian DNA methyltransferases have been identified: DNMT1, DNMT2 and DNMT3. DNMT1 is constitutively expressed in proliferating cells and functions as a maintenance methyltransferase, transferring proper methylation patterns to newly synthesized DNA during replication.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Dnmt3a Antibody - Protein Information

Name DNMT3A

Function

Required for genome-wide de novo methylation and is essential for the establishment of DNA methylation patterns during development (PubMed:12138111, PubMed:<a

[16357870](http://www.uniprot.org/citations/16357870), PubMed: [30478443](http://www.uniprot.org/citations/30478443)). DNA methylation is coordinated with methylation of histones (PubMed: [12138111](http://www.uniprot.org/citations/12138111), PubMed: [16357870](http://www.uniprot.org/citations/16357870), PubMed: [30478443](http://www.uniprot.org/citations/30478443)). It modifies DNA in a non-processive manner and also methylates non-CpG sites (PubMed: [12138111](http://www.uniprot.org/citations/12138111), PubMed: [16357870](http://www.uniprot.org/citations/16357870), PubMed: [30478443](http://www.uniprot.org/citations/30478443)). May preferentially methylate DNA linker between 2 nucleosomal cores and is inhibited by histone H1 (By similarity). Plays a role in paternal and maternal imprinting (By similarity). Required for methylation of most imprinted loci in germ cells (By similarity). Acts as a transcriptional corepressor for ZBTB18 (By similarity). Recruited to trimethylated 'Lys-36' of histone H3 (H3K36me3) sites (By similarity). Can actively repress transcription through the recruitment of HDAC activity (By similarity). Also has weak auto-methylation activity on Cys-710 in absence of DNA (By similarity).

Cellular Location

Nucleus. Chromosome Cytoplasm. Note=Accumulates in the major satellite repeats at pericentric heterochromatin {ECO:0000250|UniProtKB:O88508}

Tissue Location

Highly expressed in fetal tissues, skeletal muscle, heart, peripheral blood mononuclear cells, kidney, and at lower levels in placenta, brain, liver, colon, spleen, small intestine and lung

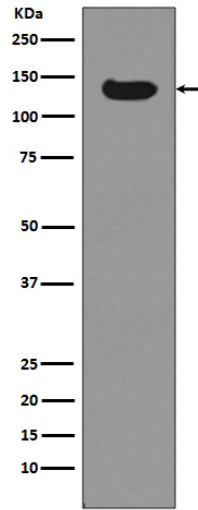
Dnmt3a Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Dnmt3a Antibody - Images





Western blot analysis of Dnmt3a expression in HeLa cell lysate.