

**Dnmt3a Antibody**  
Rabbit mAb  
Catalog # AP90536

## Specification

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### Dnmt3a Antibody - Product Information

|   |                        |
|---|------------------------|
| Application   | WB, IHC, FC, ICC       |
| Primary Accession   | <a href="#">O9Y6K1</a> |
| Reactivity  | Rat                    |
| Clonality   | Monoclonal             |
| <b>Other Names</b>  |                        |
| 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:<a href="http://www.uniprot.org/citations/12138111" target="\_blank">12138111</a>, 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

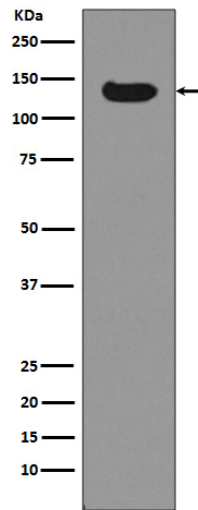
#### Dnmt3a Antibody - Protocols

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.