

**DNMT3A Antibody (CenterR478)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP14999c**

**Specification**

**DNMT3A Antibody (CenterR478) - Product Information**

|                   |   |
|-------------------|---|
| Application       | WB, E   |
| Primary Accession | <a href="#">O9Y6K1</a>  |
| Other Accession   | <a href="#">Q1LZ53</a> , <a href="#">O88508</a> ,<br><a href="#">Q4W5Z4</a> ,<br><a href="#">NP_783328.1</a> ,<br><a href="#">NP_072046.2</a> |
| Reactivity        | Human   |
| Predicted         | Chicken, Mouse, Rat   |
| Host              | Rabbit  |
| Clonality         | Polyclonal  |
| Isotype           | Rabbit Ig   |
| Calculated MW     | 101858  |
| Antigen Region    | 457-486   |

**DNMT3A Antibody (CenterR478) - Additional Information**

**Gene ID** 1788

**Other Names**

DNA (cytosine-5)-methyltransferase 3A, Dnmt3a, DNA methyltransferase HsallIA, DNA MTase HsallIA, MHsallIA, DNMT3A

**Target/Specificity**

This DNMT3A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 457-486 amino acids from the Central region of human DNMT3A.

**Dilution**

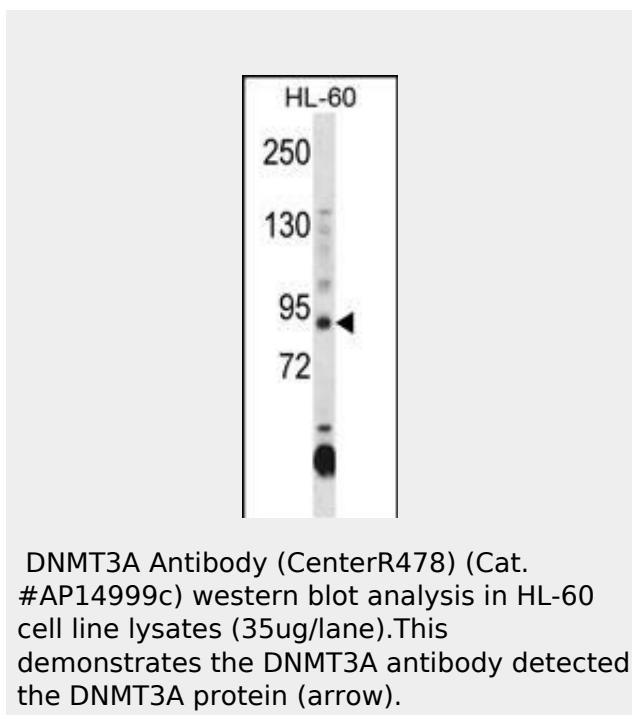
WB~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2



**DNMT3A Antibody (CenterR478) - Background**

CpG methylation is an epigenetic modification that is important for embryonic development, imprinting, and X-chromosome inactivation. Studies in mice have demonstrated that DNA methylation is required for mammalian development. This gene encodes a DNA methyltransferase that is thought to function in de novo methylation, rather than maintenance methylation. The protein localizes to the cytoplasm and nucleus and its expression is developmentally regulated. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq].

**DNMT3A Antibody (CenterR478) - References**

weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### Precautions

DNMT3A Antibody (CenterR478) is for research use only and not for use in diagnostic or therapeutic procedures.

### DNMT3A Antibody (CenterR478) - 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 href="http://www.uniprot.org/citations/16357870" target="\_blank">16357870</a>, PubMed:<a href="http://www.uniprot.org/citations/30478443" target="\_blank">30478443</a>). DNA methylation is coordinated with methylation of histones (PubMed:<a href="http://www.uniprot.org/citations/12138111" target="\_blank">12138111</a>, PubMed:<a href="http://www.uniprot.org/citations/16357870" target="\_blank">16357870</a>, PubMed:<a href="http://www.uniprot.org/citations/30478443" target="\_blank">30478443</a>). It modifies DNA in a non-processive manner and also methylates non-CpG sites (PubMed:<a href="http://www.uniprot.org/citations/12138111" target="\_blank">12138111</a>, PubMed:<a href="http://www.uniprot.org/citations/16357870" target="\_blank">16357870</a>, PubMed:<a href="http://www.uniprot.org/citations/30478443" target="\_blank">30478443</a>). 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).

Holz-Schietinger, C., et al. J. Biol. Chem. 285(38):29091-29100(2010)  
Kelemen, L.E., et al. Cancer Epidemiol. Biomarkers Prev. 19(7):1822-1830(2010)  
Park, C.W., et al. J Cardiovasc Transl Res 3(3):290-295(2010)  
Haggarty, P., et al. PLoS ONE 5 (6), E11329 (2010) :  
Zhao, Z., et al. J. Biomed. Biotechnol. 2010, 737535 (2010) :

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 (CenterR478) - 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](#)