

**DNMT3L Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP16566b**

**Specification**

**DNMT3L Antibody (C-term) - Product Information**

Application	<b>WB,E</b>
Primary Accession	<a href="#">O9UJW3</a>
Other Accession	<a href="#">NP_037501.2</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit Ig</b>
Calculated MW	<b>43583</b>
Antigen Region	<b>355-381</b>

**DNMT3L Antibody (C-term) - Additional Information**

**Gene ID** 29947

**Other Names**

DNA (cytosine-5)-methyltransferase 3-like, DNMT3L

**Target/Specificity**

This DNMT3L antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 355-381 amino acids from the C-terminal region of human DNMT3L.

**Dilution**

WB~~1:1000

**Format**

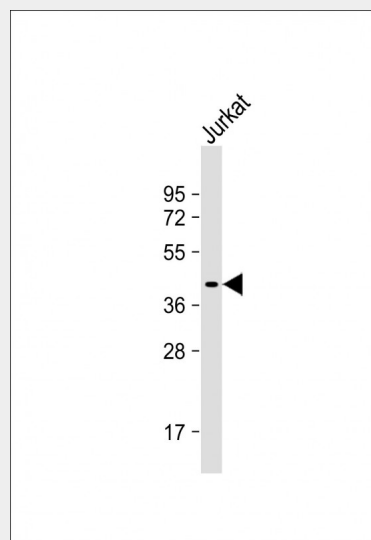
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

DNMT3L Antibody (C-term) is for research use only and not for use in diagnostic or



Anti-DNMT3L Antibody (C-term) at 1:1000 dilution + Jurkat whole cell lysate  
Lysates/proteins at 20 µg per lane.  
Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution.  
Predicted band size : 44 kDa  
Blocking/Dilution buffer: 5% NFDM/TBST.

**DNMT3L Antibody (C-term) - 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 nuclear protein with similarity to DNA methyltransferases. This protein is not thought to function as a DNA methyltransferase as it does not contain the amino acid residues necessary for methyltransferase activity. However, this protein does stimulate de novo methylation by DNA cytosine

therapeutic procedures.

#### **DNMT3L Antibody (C-term) - Protein Information**

**Name** DNMT3L

#### **Function**

Catalytically inactive regulatory factor of DNA methyltransferases that can either promote or inhibit DNA methylation depending on the context (By similarity). Essential for the function of DNMT3A and DNMT3B: activates DNMT3A and DNMT3B by binding to their catalytic domain (PubMed: <a href="http://www.uniprot.org/citations/17687327" target="\_blank">17687327</a>). Acts by accelerating the binding of DNA and S-adenosyl-L-methionine (AdoMet) to the methyltransferases and dissociates from the complex after DNA binding to the methyltransferases (PubMed: <a href="http://www.uniprot.org/citations/17687327" target="\_blank">17687327</a>). Recognizes unmethylated histone H3 lysine 4 (H3K4me0) and induces de novo DNA methylation by recruitment or activation of DNMT3 (PubMed: <a href="http://www.uniprot.org/citations/17687327" target="\_blank">17687327</a>). Plays a key role in embryonic stem cells and germ cells (By similarity). In germ cells, required for the methylation of imprinted loci together with DNMT3A (By similarity). In male germ cells, specifically required to methylate retrotransposons, preventing their mobilization (By similarity). Plays a key role in embryonic stem cells (ESCs) by acting both as a positive and negative regulator of DNA methylation (By similarity). While it promotes DNA methylation of housekeeping genes together with DNMT3A and DNMT3B, it also acts as an inhibitor of DNA methylation at the promoter of bivalent genes (By similarity). Interacts with the EZH2 component of the PRC2/EED-EZH2 complex, preventing interaction of DNMT3A and DNMT3B with the PRC2/EED-EZH2 complex, leading to maintain low methylation levels at the promoters of bivalent genes (By similarity). Promotes differentiation of ESCs into primordial germ cells by inhibiting DNA methylation at the promoter of RHOX5, thereby activating its expression (By similarity).

methyltransferase 3 alpha and it is thought to be required for the establishment of maternal genomic imprints. This protein also mediates transcriptional repression through interaction with histone deacetylase 1. Alternative splicing results in two transcript variants. An additional splice variant has been described but its biological validity has not been determined.

#### **DNMT3L Antibody (C-term) - References**

Holz-Schietinger, C., et al. J. Biol. Chem. 285(38):29091-29100(2010)  
Manderwad, G.P., et al. Arch. Pathol. Lab. Med. 134(8):1193-1196(2010)  
Kim, H., et al. Int. J. Oncol. 36(6):1563-1572(2010)  
Minami, K., et al. Clin. Cancer Res. 16(10):2751-2759(2010)  
Haggarty, P., et al. PLoS ONE 5 (6), E11329 (2010) :

**Cellular Location**

Nucleus.

**Tissue Location**

Expressed at low levels in several tissues including testis, ovary, and thymus.

**DNMT3L Antibody (C-term) - 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](#)