

### Anti-Dnmt3L antibody ab3493

★★★★★ [16 Abreviews](#) [15 References](#) [1 Image](#)

#### Overview

<b>Product name</b>	Anti-Dnmt3L antibody
<b>Description</b>	Rabbit polyclonal to Dnmt3L
<b>Host species</b>	Rabbit
<b>Specificity</b>	This antibody is expected to cross-react with mouse as the sequence of the human immunogen shows 76% identity with mouse.
<b>Tested applications</b>	<b>Suitable for:</b> IP
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide corresponding to Human Dnmt3L aa 152-164 conjugated to keyhole limpet haemocyanin. Sequence: C-GLLQRRRKWRSQL

Database link: [Q9UJW3](#)

 [Run BLAST with](#)

 [Run BLAST with](#)

#### General notes

DNMT 3L is a nuclear protein which has similarity to DNA methyltransferases, involved in de novo methylation of CpG islands. 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 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.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

## Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 0.42% Potassium phosphate, 0.87% Sodium chloride
Purity	Immunogen affinity purified
Purification notes	This is an affinity purified antibody produced by immunoaffinity chromatography using the immunizing peptide after immobilization to a solid phase. This antibody is expected to cross-react with mouse as the sequence of the human immunogen shows 76% identity with mouse. Reactivity with DNMT3L from other species has not yet been tested.
Primary antibody notes	DNMT 3L is a nuclear protein which has similarity to DNA methyltransferases, involved in de novo methylation of CpG islands. 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 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.
Clonality	Polyclonal
Isotype	IgG

## Applications

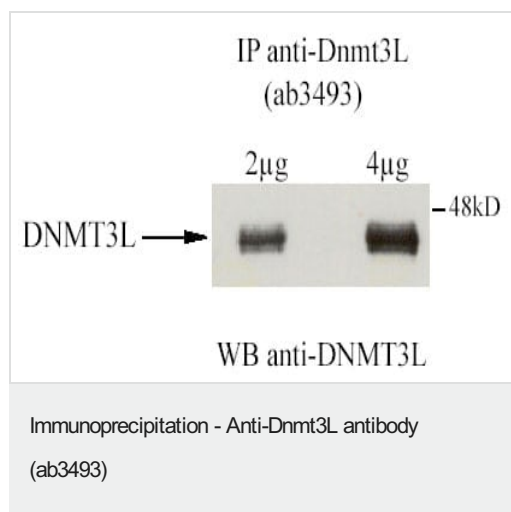
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab3493 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP	★★★★★ (6)	1/100.

## Target

Function	Catalytically inactive regulatory factor of DNA methyltransferases. It is essential for the function of DNMT3A and DNMT3B. Activates DNMT3A and DNMT3B by binding to their catalytic domain. Accelerates the binding of DNA and AdoMet to the methyltransferases and dissociates from the complex after DNA binding to the methyltransferases. Recognizes unmethylated histone H3 lysine 4 (H3K4) and induces de novo DNA methylation by recruitment or activation of DNMT3.
Tissue specificity	Expressed at low levels in several tissues including testis, ovary, and thymus.
Sequence similarities	Belongs to the C5-methyltransferase family. Contains 1 ADD-type zinc finger.
Cellular localization	Nucleus.

## Images



Transfection of U2OS cells (10cm dish) using 3µg of GAL4-DNMT3L. Protein extraction using IPH 150mM. IP and WB conditions, see Fuks et al. (2000). Nature Genetics 24: 88-91. WB using 0.4µg/ml in TBS milk 2%, BSA 0.5%. Detection using ECL.

Note: ab3493 worked in WB following IP, but did not work in a straight WB.

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