

DNMT3A antibody (mAb)

Catalog No: 39206

RRID: AB_2722512

Clone: 64B1446

Application(s): ChIP, IHC, WB

Reactivity: Human, Mouse

Quantity: 100 µg

Purification: Protein G Chromatography

Host: Mouse

Isotype: IgG1k

Concentration: 1 µg/µl

Molecular Weight: 116 kDa

Background: DNMT3A – DNA methyltransferase proteins such as DNMT3A (or DNMT 3A) are involved in DNA methylation, in which a methyl group is added to a cytosine residue on DNA, commonly at the C5 position of a CpG dinucleotide. DNMT3A has been shown to be important in the regulation of specific patterns of DNA methylation. Methylation of mammalian DNA has long been recognized to play a major role in a number of cellular functions such as embryonic development, genetic imprinting, X chromosome inactivation and control of gene expression. DNA methylation is generally associated with transcriptional repression.

Three families of DNMTs have been identified: DNMT1, DNMT2 and DNMT3. The DNMT3 family, containing two active methyltransferases, DNMT3A & DNMT3B, and one DNMT3-Like protein (DNMT3L), establishes the initial CpG methylation pattern *de novo* and shows the same propensity for methylating unmethylated duplex DNA as for hemi-methylated DNA. DNMT3A and DNMT3B are encoded by two distinct genes and are strongly expressed in embryonic stem cells. DNMT3A is ubiquitous in mammalian cells.

Immunogen: This DNMT3A antibody was raised against a full-length protein corresponding to mouse DNMT3A.

Buffer: PBS containing 0.05% sodium azide. Sodium azide is highly toxic.

Application Notes:

Validated Applications:

WB: 2 - 4 µg/ml dilution

Individual optimization may be required.

For optimal results, primary antibody incubations should be performed at room temperature. The addition of 0.1% Tween 20 to all Blotto solutions may also reduce background. Individual optimization may be required.

Published Applications:

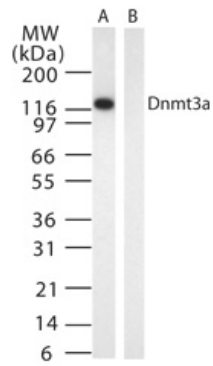
ChIP

IHC

See references for more information.

Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Store at 4°C for short term. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.

**DNMT3A mAb tested by Western blot.**

Detection of DNMT3A by Western blot. The analysis was performed using DNMT3A mAb at a 2 $\mu\text{g/ml}$ dilution and whole-cell extracts from 293 cells that had been transfected with plasmid expressing either mouse DNMT3A (lane A) or DNMT3B (lane B).