



# Rabbit Anti-Dnmt3a monoclonal antibody, clone TU15-89 (DCABH-2952)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Target</b>	Dnmt3a
<b>Immunogen</b>	Recombinant protein
<b>Isotype</b>	IgG
<b>Source/Host</b>	Rabbit
<b>Species Reactivity</b>	Human, Rat
<b>Clone</b>	TU15-89
<b>Purification</b>	Protein A purified.
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	WB, ICC/IF
<b>Molecular Weight</b>	120 kDa
<b>Cellular Localization</b>	Cytoplasm, Nucleus.
<b>Positive Control</b>	NIH/3T3, HeLa, HepG2, human brain tissue, human heart tissue.
<b>Format</b>	Liquid
<b>Size</b>	100 µl
<b>Buffer</b>	1×TBS (pH7.4), 1% BSA, 40% Glycerol.
<b>Preservative</b>	0.05% Sodium Azide

**Storage**

Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

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## BACKGROUND

**Introduction**

Methylation at the 5'-position of cytosine is the only known naturally occurring covalent modification of the mammalian genome. DNA methylation requires the enzymatic activity of DNA 5-cytosine methyltransferase (Dnmt) proteins, which catalyze the transfer of a methyl group from S-adenosyl methionine to the 5'-position of cytosines residing in the dinucleotide CpG motif, and this methylation results in transcriptional repression of the target gene. The Dnmt enzymes are encoded by independent genes. Dnmt1 is the most abundant, and it preferentially methylates hemimethylated DNA and coordinates gene expression during development. Additional mammalian Dnmt proteins include Dnmt2 and Dnmt3. Dnmt2 lacks the large N-terminal regulator domain of Dnmt1, is expressed at substantially lower levels in adult tissues, and is likely involved in methylating newly integrated retroviral DNA. Dnmt3a and Dnmt3b are encoded by two distinct genes, but both are abundantly expressed in embryonic stem cells, where they also methylate CpG motifs on DNA.

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**Keywords**

DNA (cytosine 5) methyltransferase 3 alpha;DNA (cytosine 5) methyltransferase 3A;DNA (cytosine-5)-methyltransferase 3A;DNA cytosine methyltransferase 3A2;DNA methyltransferase 3 alpha;DNA methyltransferase 3a;DNA methyltransferase HsaIIIA;DNA MTase HsaIIIA;DNM3A\_HUMAN;DNMT 3a;DNMT;Dnmt3a;DNMT3A2;M.HsaIIIA;MCMT;OTTHUMP00000201149;TBRS antibody

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