

Dnmt3a Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8628b**Specification**

Dnmt3a Antibody - Product Information

Application	WB,E
Primary Accession	O9Y6K1
Reactivity	Human
Host	Mouse
Clonality	monoclonal
Isotype	IgG1,k
Calculated MW	101858

Dnmt3a Antibody - Additional Information**Gene ID** 1788**Other Names**

DNA (cytosine-5)-methyltransferase 3A, Dnmt3a, 2.1.1.37, DNA methyltransferase HsallIA, DNA MTase HsallIA, M.HsallIA, DNMT3A

Target/Specificity

This Dnmt3a antibody is generated from a mouse immunized with a recombinant protein of human Dnmt3a.

Dilution

WB~~1:2000-1:4000

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

Dnmt3a Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Dnmt3a Antibody - 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:[12138111](#), PubMed:[16357870](#), PubMed:[30478443](#)). DNA methylation is coordinated with methylation of histones (PubMed:[12138111](#), PubMed:[16357870](#), PubMed:[30478443](#)). It modifies DNA in a non-processive manner and also methylates non-CpG sites (PubMed:[12138111](#), PubMed:[16357870](#), PubMed:[30478443](#)). 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). 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

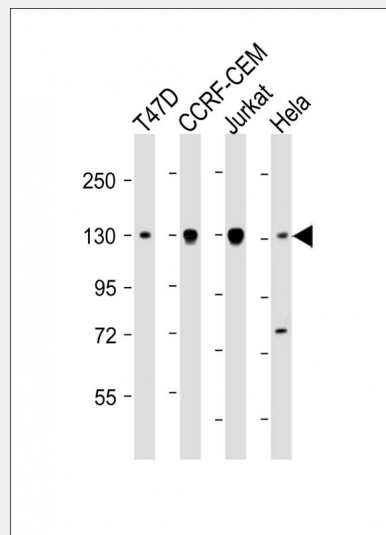
Highly expressed in fetal tissues, skeletal muscle, heart, peripheral blood mononuclear cells, kidney, and at lower levels in placenta, brain, liver, colon, spleen, small intestine and lung

Dnmt3a Antibody - 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](#)

Dnmt3a Antibody - Images



All lanes : Anti-Dnmt3a Antibody at 1:2000-1:4000 dilution Lane 1: T47D whole cell lysate Lane 2: CCRF-CEM whole cell lysate Lane 3: Jurkat whole cell lysate Lane 4: HeLa whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 102 kDa Blocking/Dilution buffer: 5% NFD/MBST.

Dnmt3a Antibody - Background

Required for genome-wide de novo methylation and is essential for the establishment of DNA methylation patterns during development. DNA methylation is coordinated with methylation of

histones. It modifies DNA in a non-processive manner and also methylates non-CpG sites. May preferentially methylate DNA linker between 2 nucleosomal cores and is inhibited by histone H1. Plays a role in paternal and maternal imprinting. Required for methylation of most imprinted loci in germ cells. Acts as a transcriptional corepressor for ZBTB18. Recruited to trimethylated 'Lys-36' of histone H3 (H3K36me3) sites. Can actively repress transcription through the recruitment of HDAC activity.

Dnmt3a Antibody - References

- Xie S., et al. *Gene* 236:87-95(1999).
Chen T., et al. *J. Biol. Chem.* 277:38746-38754(2002).
Kim G.-D., et al. *EMBO J.* 21:4183-4195(2002).
Hillier L.W., et al. *Nature* 434:724-731(2005).
Mural R.J., et al. Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.