

# (Mouse) Dnmt1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP21131a

## Product Information

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<b>Application</b>	WB, IHC-P, IF, E
<b>Primary Accession</b>	<a href="#">P13864</a>
<b>Reactivity</b>	Human, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB51461

## Additional Information

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<b>Other Names</b>	DNA (cytosine-5)-methyltransferase 1, Dnmt1, Met-1, DNA methyltransferase MmuI, DNA MTase MmuI, MMmuI, MCMT, Dnmt1, Dnmt, Met1, Uim
<b>Target/Specificity</b>	This MouseDnmt1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 881-914 amino acids from the Central region of mouse Dnmt1.
<b>Dilution</b>	WB~~1:1000 IHC-P~~1:100~500 IF~~1:50 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	(Mouse) Dnmt1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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### Background

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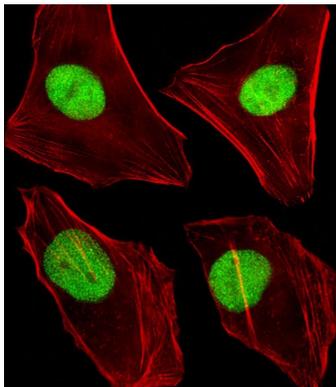
Methylates CpG residues. Preferentially methylates hemimethylated DNA. Associates with DNA replication sites in S phase maintaining the methylation pattern in the newly synthesized strand, that is essential for epigenetic inheritance. Associates with chromatin during G2 and M phases to maintain DNA methylation independently of replication. It is responsible for maintaining methylation patterns established in development. DNA methylation is coordinated with methylation of histones. Mediates transcriptional repression by direct binding to HDAC2. In association with DNMT3B and via the recruitment of CTCFL/BORIS,

involved in activation of BAG1 gene expression by modulating dimethylation of promoter histone H3 at H3K4 and H3K9.

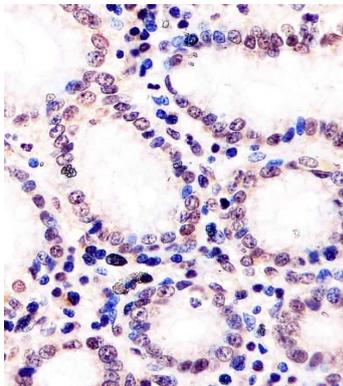
## References

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Yoder J.A., et al. *J. Biol. Chem.* 271:31092-31097(1996).  
Aguirre-Arteta A.M., et al. *Cell Growth Differ.* 11:551-559(2000).  
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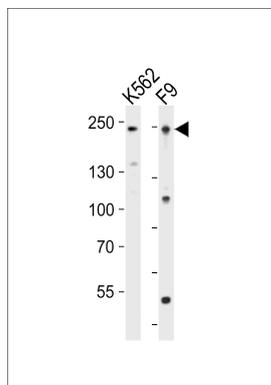
## Images



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling Dnmt1 with AP21131a at 1/50 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing nucleus staining on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red).

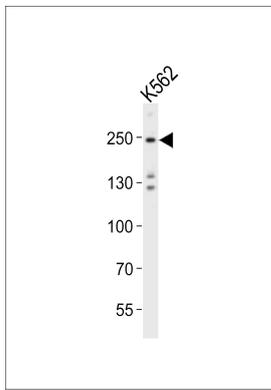


AP21131a staining (Mouse) Dnmt1 in human stomach tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Western blot analysis of lysates from K562, mouse F9 cell line (from left to right), using Dnmt1 Antibody (Center)(Cat. #AP21131a). AP21131a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.

Western blot analysis of lysate from K562 cell line, using Dnmt1 Antibody (Center)(Cat. #AP21131a). AP21131a was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.



## Citations

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- [UV irradiation-induced DNA hypomethylation around WNT1 gene: implications for solar lentigines.](#)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.