

Anti-(Mouse) Dnmt1 Antibody (Center)

Catalog Number: M00172-2

About Dnmt1

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.

Overview

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|----------------------|---|
| Product Name | Anti-(Mouse) Dnmt1 Antibody (Center) |
| Reactive Species | Human, Mouse |
| Description | Boster Bio Anti-(Mouse) Dnmt1 Antibody (Center) (Catalog # M00172-2). Tested in WB, IHC-P, IF application(s). This antibody reacts with Human, Mouse. |
| Application | IF, IHC-P, WB |
| Clonality | Polyclonal |
| Formulation | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. |
| Storage Instructions | 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. |
| Host | Rabbit |
| Uniprot ID | P13864 |

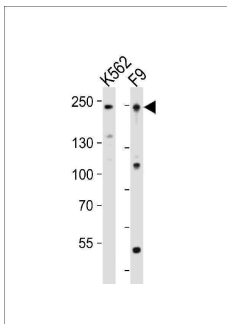
Technical Details

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| Immunogen | 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. |
| Predicted Reactive Species | Bovine, Mouse |
| Isotype | Rabbit IgG |
| Purification | This antibody is purified through a protein A column, followed by peptide affinity purification. |
| Suggested Dilutions | IF: 1:50 WB: 1:1000 IHC-P: 1:25 |

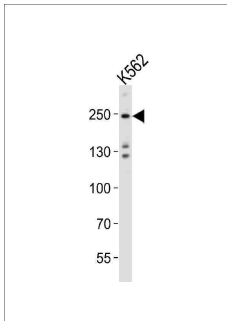
Anti-(Mouse) Dnmt1 Antibody (Center) (M00172-2) Images



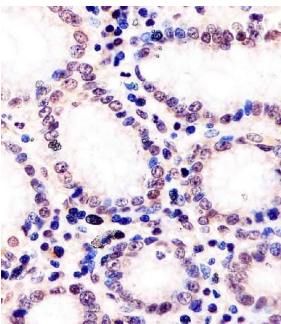
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling Dnmt1 with M00172-2 at 1/50 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG secondary antibody at 1/200 dilution (green). Immunofluorescence image showing nucleus staining on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin at 1/100 dilution (red).



Western blot analysis of lysates from K562, mouse F9 cell line (from left to right), using Dnmt1 Antibody (Center) (Cat. #M00172-2). M00172-2 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. #M00172-2). M00172-2 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.



M00172-2 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.

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