

# Anti-DNMT1 Antibody [A2-C11]

EM1707-16



<b>Product Type:</b>	Mouse monoclonal IgG1, primary antibodies
<b>Species reactivity:</b>	Human, Monkey
<b>Applications:</b>	WB, IHC-P
<b>Molecular Wt:</b>	183 kDa
<b>Clone number:</b>	A2-C11

<b>Description:</b>	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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<b>Immunogen:</b>	Recombinant protein
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<b>Positive control:</b>	Human DNMT1 recombinant protein, DNMT1-hlgGfC transfected HEK293 cell lysate, Jurkat, Cos7, HCT116, NTERA-2, human rectum cancer tissue.
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<b>Subcellular location:</b>	Nucleus
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<b>Database links:</b>	SwissProt: P26358 Human
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**Recommended Dilutions:**

<b>WB</b>	1:500-1:2,000
<b>IHC-P</b>	1:50-1:200

<b>Storage Buffer:</b>	Purified antibody in PBS with 0.05% sodium azide.
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<b>Storage Instruction:</b>	4℃; -20℃ for long term storage.
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<b>Purity:</b>	Protein A affinity purified.
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Orders:0086-571-88062880

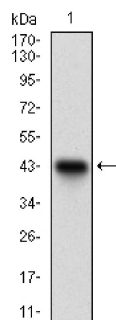
Technical:0086-571-89986345

Service mail:support@huabio.cn

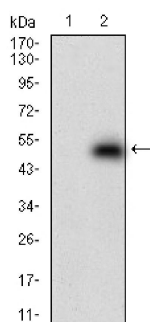
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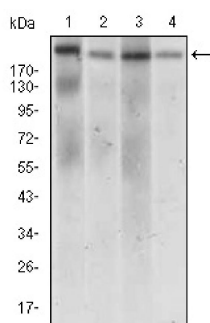
## Images



**Fig1:** Western blot analysis of DNMT1 on human DNMT1 recombinant protein using anti-DNMT1 antibody at 1/1,000 dilution.

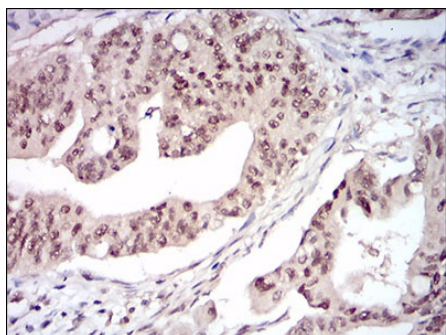


**Fig2:** Western blot analysis of DNMT1 on HEK293 (1) and DNMT1-hlgGfc transfected HEK293 (2) cell lysate using anti-DNMT1 antibody at 1/1,000 dilution.



**Fig3:** Western blot analysis of DNMT1 on different cell lysate using anti-DNMT1 antibody at 1/1,000 dilution.

**Positive control:** Line1: Jurkat Line2: Cos7 Line3: HCT116 Line4: NTERA-2



**Fig4:** Immunohistochemical analysis of paraffin-embedded human rectum cancer tissue using anti-DNMT1 antibody. Counter stained with hematoxylin.

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**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

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### Background References

1. Lee E et al. DNMT1 Regulates Epithelial-Mesenchymal Transition and Cancer Stem Cells, Which Promotes Prostate Cancer Metastasis. *Neoplasia* 18:553-66 (2016).
2. Virant-Klun I et al. Identification of Maturation-Specific Proteins by Single-Cell Proteomics of Human Oocytes. *Mol Cell Proteomics* 15:2616-27 (2016).

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