



## Anti-DNMT1 Antibody (Clone ABM13B2)

**Alternative Names:** DNMT1, AIM, CXXC9, DNMT, DNA (cytosine-5)-methyltransferase 1, Dnmt1

**Catalogue Number:** AA17-10025-50ug

**Size:** 50 µg

### Background Information

DNA methyltransferase 1 (DNMT1) associates with the replication machinery and restores symmetrical methylation at hemimethylated CpG sites generated by the semi-conservative DNA replication process. It maintains methylation patterns with high fidelity and is essential for embryonic development and genome integrity.

DNMT1 is one of the most abundant DNA methyltransferase in mammalian tissues. It comprises a regulatory N-terminal region and a C-terminal catalytic domain connected by a linker of seven glycine-lysine repeats. The C-terminal domains contain all ten catalytic motifs identified in bacterial DNA (cytosine-5) methyltransferases. The N-terminal part contains a PCNA binding domain (PBD), a heterochromatin targeting sequence (TS), a CXXC-type zinc finger domain and two Bromo-Adjacent Homology domains (BAH1 and BAH2). DNMT1 interacts with RNA polymerase II, some RNA-binding proteins, and some specific Dnmt1-inhibitory RNA molecules involved in chromatin organisation, DNA repair, cell cycle regulation, and apoptosis.

### Product Information

<b>Antibody Type:</b>	Monoclonal	<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG1 kappa	<b>Species Reactivity:</b>	Mouse, Human
<b>Immunogen:</b>	Partial length recombinant human DNMT1 from the N-terminal region of the protein		
<b>Format:</b>	50 µg in 100 µl PBS containing 0.05% BSA and 0.05% sodium azide.		
<b>Storage Conditions:</b>	6 months: 4°C. Long-term storage: -20°C. Avoid multiple freeze and thaw cycles.		
<b>Applications:</b>	IHC   FACS   WB WB: 2-4 ug/ml, Immunohistochemical analysis: 5 ug/ml, FACS analysis: 0.5 ug/10 <sup>6</sup> cells		

### Additional Information

<b>Subcellular location:</b>	Nucleus	<b>MW:</b>	183kDa (Intended as a general guide and does not allow for all isoforms and species variations.)
<b>Gene ID</b>	1786	<b>Uniprot ID:</b>	P26358