

## Recombinant Mouse DNMT1, GST-tagged

Cat. No. DNMT1-6950M Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant mouse DNMT1 (766-end) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
<b>Species</b>	Mouse
<b>Source</b>	Sf9 Cells
<b>ProteinLength</b>	766 aa-end
<b>Description</b>	DNMT1 has a role in the establishment and regulation of tissue-specific patterns of methylated cytosine residues. Aberrant methylation patterns are associated with certain human tumors and developmental abnormalities. DNMT1 enzyme is crucial for stable expression and function in vivo. DNMT1 is essential for maintenance of DNA methylation and the interaction of DNMT1 with the replication machinery is not strictly necessary for maintenance of DNA methylation, but improves its efficiency. DNMT1 is necessary and sufficient to maintain global methylation and aberrant CpG island methylation in human cancer cells.
<b>Form</b>	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 50mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
<b>Molecular Mass</b>	~132 kDa
<b>Purity</b>	>70%

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<b>Applications</b>	Western Blot
<b>Storage</b>	Store at $-70^{\circ}\text{C}$ . For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. Avoid freeze/thaw cycles.
<b>Concentration</b>	0.05 $\mu\text{g}/\mu\text{l}$
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	Dnmt1 DNA methyltransferase (cytosine-5) 1 [ <i>Mus musculus</i> ]
<b>Official Symbol</b>	DNMT1
<b>Synonyms</b>	DNMT1; DNA methyltransferase (cytosine-5) 1; DNA (cytosine-5)-methyltransferase 1; DNA MTase Mmul; DNA methyltransferase Mmul; Dnmt; MCMT; Met1; Cxxc9; MTase; Met-1; Dnmt1o; m.Mmul; MommeD2;
<b>Gene ID</b>	13433
<b>mRNA Refseq</b>	NM_001199431
<b>Protein Refseq</b>	NP_001186360
<b>Pathway</b>	Cysteine and methionine metabolism, organism-specific biosystem; Cysteine and methionine metabolism, conserved biosystem; Metabolic pathways, organism-specific biosystem; Methionine degradation, organism-specific biosystem; Methionine degradation, conserved biosystem; One Carbon Metabolism, organism-specific biosystem; PluriNetWork, organism-specific biosystem;
<b>Function</b>	DNA (cytosine-5-)-methyltransferase activity; DNA (cytosine-5-)-methyltransferase activity; DNA (cytosine-5-)-methyltransferase activity, acting on CpG substrates; DNA

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binding; DNA binding; DNA-methyltransferase activity; catalytic activity; double-stranded DNA binding; histone deacetylase binding; metal ion binding; methyl-CpG binding; methyltransferase activity; protein binding; protein domain specific binding; transcription factor binding; transferase activity; unmethylated CpG binding; zinc ion binding;

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