

Active Recombinant Human DNMT3A, GST-tagged

Cat. No. DNMT3A-164H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human DNMT3A was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species	Human
Source	Sf9 Cells
Description	DNMT3A: DNA (cytosine-5-)-methyltransferase 3 alpha plays important role in genomic imprinting and X chromosome inactivation and is essential for mammalian development. DNMT3A appears to function as a de novo methyltransferase, since it can methylate unmethylated and hemimethylated DNA with equal efficiencies. DNMT3A is required for genome wide de novo methylation and is essential for mammalian development. DNMT3A is critical for maintaining active chromatin states of genes that are essential for development.
Form	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.
Bio-activity	The specific activity of DNMT3A was determined to be 250 pmol /min/mg
Molecular Mass	~162 kDa
Purity	>70% by densitometry
Applications	Methyltransferase Assay

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Storage	Store product at –70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Concentration	0.1 µg/µl
GENE INFORMATION	
Gene Name	DNMT3A DNA (cytosine-5-)-methyltransferase 3 alpha [Homo sapiens]
Official Symbol	DNMT3A
Synonyms	DNMT3A; DNA (cytosine-5-)-methyltransferase 3 alpha; DNA (cytosine-5)-methyltransferase 3A; DNA MTase HsaIIIA; DNA cytosine methyltransferase 3A2; DNMT3A2; M.HsaIIIA;
Gene ID	1788
mRNA Refseq	NM_022552
Protein Refseq	NP_072046
MIM	602769
UniProt ID	Q9Y6K1
Chromosome Location	2p23
Pathway	Cysteine and methionine metabolism, organism-specific biosystem; Cysteine and methionine metabolism, conserved biosystem; Metabolic pathways, organism-specific

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biosystem; Methionine degradation, organism-specific biosystem; Methionine degradation, conserved biosystem; One Carbon Metabolism, organism-specific biosystem; Validated targets of C-MYC transcriptional repression, organism-specific biosystem;

Function

DNA (cytosine-5-)-methyltransferase activity; DNA (cytosine-5-)-methyltransferase activity, acting on CpG substrates; DNA binding; chromatin binding; metal ion binding; methyltransferase activity; protein binding; transferase activity; unmethylated CpG binding;

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