

DNMT3A/DNMT3L recombinant protein

Recombinant DNMT3A/DNMT3L complex

CATALOG #
AAA59666

HOST
Baculovirus

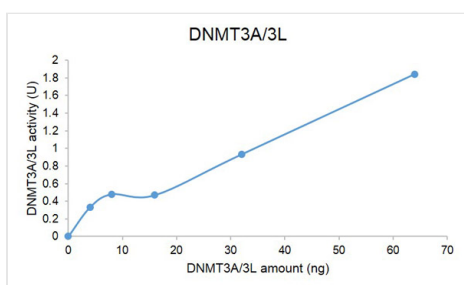
PRODUCT SYNONYMS

DNMT3A/DNMT3L; Recombinant DNMT3A/DNMT3L complex; DNMT3A/DNMT3L recombinant protein

PRODUCT SPECIFICATIONS

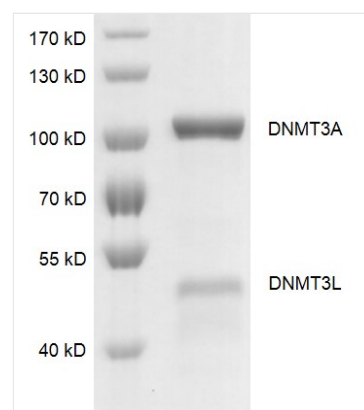
Host	Baculovirus
Purity/Purification	The recombinant protein is >95% pure by SDS-PAGE.
Form/Format	Recombinant DNMT3A/DNMT3L complex is supplied in 25mM Hepes pH7.5, 300mM NaCl, 5% Glycerol, 0.04% Triton X-100, 0.2mM TCEP and 0.2mg/ml 3× DYKDDDDK peptide. Please refer to product insert upon arrival for lot-specific concentration.
Protein Species	Human
Tag	DYKDDDDK-Tag, His-Tag
Notes	Recombinant DNMT3A/DNMT3L complex is suitable for use in enzyme kinetics, inhibitor screening, and selectivity profiling. DNMT Activity Assay Conditions: Assay was performed using DNMT Activity/Inhibition Assay, for 1 hour at 37 degree C.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



Application Data

Recombinant DNMT3A / DNMT3L complex activity assay
Recombinant DNMT3A / DNMT3L complex activity was measured using DNMT Activity / Inhibition Assay, for 1 hour at 37 degree C



SDS-PAGE

Recombinant DNMT3A / DNMT3L complex gel
Recombinant DNMT3A / DNMT3L complex was run on an 8% SDS-PAGE gel and stained with Coomassie blue.

ADDITIONAL INFORMATION

Related Product Information for DNMT3A/DNMT3L recombinant protein	Short Description: Recombinant DNMT3A/DNMT3L complex that includes human DNMT3A amino acids 214-912 (accession number NP_783328.1) with an N-terminal 6xHis-tag and DYKDDDDK-Tag and full-length DNMT3L (accession number NP_787063.1) with an N-terminal 6xHis-tag was expressed in Sf9 cells. The molecular weights of DNMT3A and DNMT3L are 83.8 kDa and 46.6 kDa, respectively. The recombinant protein is >=95% pure by SDS-PAGE. It is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. Background: DNA methyltransferase proteins such as DNMT3A are involved in DNA methylation, in which a methyl group is added to a cytosine residue on DNA, commonly at the C5 position of a CpG dinucleotide. DNMT3A has been shown to be important in the regulation of specific patterns of DNA methylation. Methylation of mammalian DNA has long been recognized to play a major role in a number of cellular functions such as embryonic development, genetic imprinting, X chromosome inactivation and control of gene expression. DNA methylation is generally associated with transcriptional repression. Three families of DNMTs have been identified: DNMT1, DNMT2 and DNMT3. The DNMT3 family, containing two active methyltransferases, DNMT3A & DNMT3B, and one DNMT3-Like protein (DNMT3L), establishes the initial CpG methylation pattern de novo and shows the same propensity for methylating unmethylated duplex DNA as for hemi-methylated DNA. DNMT3A and DNMT3B are encoded by two distinct genes and are strongly expressed in embryonic stem cells. DNMT3A is ubiquitous in mammalian cells. DNMT3L is a nuclear protein with similarity to the DNMT family of proteins, but does not function as a DNA methyltransferase. It serves as an essential regulator of DNMT3A and DNMT3B, recruiting them to sites for deposition of de novo DNA methylation.
Product Categories/Family for DNMT3A/DNMT3L recombinant protein	Recombinant Proteins; DNA Methyltransferase (DNMT)

NCBI AND UNIPROT INFORMATION

NCBI GI #	28872780
NCBI GeneID	29947
NCBI Accession #	NP_787063.1
NCBI GenBank Nucleotide #	NM_175867.1
UniProt Accession #	Q9UJW3; Q9BUJ4; E9PB42
Molecular Weight	43,583 Da
NCBI Official Full Name	DNA (cytosine-5)-methyltransferase 3-like isoform 2
NCBI Official Synonym Full Names	DNA (cytosine-5-)-methyltransferase 3-like
NCBI Official Symbol	DNMT3L
NCBI Official Synonym Symbols	MGC1090
NCBI Protein Information	DNA (cytosine-5)-methyltransferase 3-like; DNA (cytosine-5)-methyltransferase 3-like; OTTHUMP00000109516; OTTHUMP00000109517; cytosine-5-methyltransferase 3-like protein; human cytosine-5-methyltransferase 3-like protein
UniProt Protein Name	DNA (cytosine-5)-methyltransferase 3-like
UniProt Gene Name	DNMT3L
UniProt Entry Name	DNM3L_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.