

Recombinant DNMT3B / DNMT3L Complex

Catalog No: 31416, 31816

Expressed In: Baculovirus

Quantity: 20, 1000 µg

Concentration: 0.25 µg/µl

Source: Human

Buffer Contents: Full length recombinant DNMT3B / DNMT3L Complex is supplied at a concentration of 0.25 µg/µl in 25 mM Hepes pH 7.5, 300 mM NaCl, 5% Glycerol, 0.04% Triton X-100, 0.2 mM TCEP and 0.2 mg/ml 3× Flag peptide.

Background: **DNA methyltransferase** proteins 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. Three families of DNMTs have been identified: DNMT1, DNMT2, and DNMT3.

The DNMT3 family contains two active methyltransferases, DNMT3A & DNMT3B, and one DNMT3-Like protein (DNMT3L). DNMT3B has been shown to be important in the regulation of specific patterns of DNA methylation, specifically de novo 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 the control of gene expression. DNA methylation is generally associated with transcriptional repression. Mutations in the DNMT3B gene cause the immunodeficiency-centromeric instability-facial anomalies (ICF) syndrome. 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.

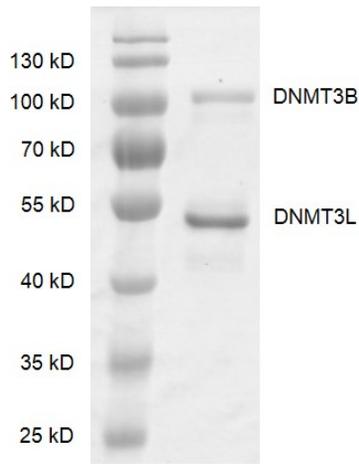
Protein Details: Recombinant DNMT3B / DNMT3L Complex that includes full length human DNMT3B protein (accession number NP_787045.1) with an N-terminal 6×His tag and DNMT3L (accession number NP_787063.1) with an N-terminal 6×His and Flag tag was expressed in Sf9 cells. The molecular weights of DNMT3B and DNMT3L are 89.7 kDa and 48.6 kDa, respectively. The recombinant protein is >90% pure by SDS-PAGE.

Application Notes: Recombinant DNMT3B / DNMT3L Complex is suitable for use in enzyme kinetics, inhibitor screening, and selectivity profiling.

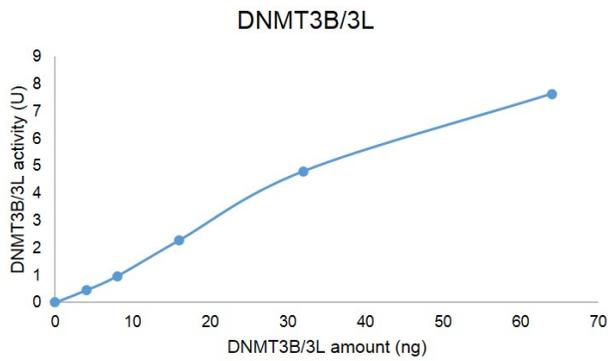
DNMT Activity Assay Conditions: Assay was performed using DNMT Activity / Inhibition Assay, Active Motif Catalog No. 55006, for 1 hour at 37°C.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 6 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



Recombinant DNMT3B / DNMT3L Complex gel
 Recombinant DNMT3B / DNMT3L Complex was run on an 10% SDS-PAGE gel and stained with Coomassie blue.



Recombinant DNMT3B / DNMT3L Complex activity assay
 Recombinant DNMT3B / DNMT3L Complex activity was measured using DNMT Activity / Inhibition Assay, Active Motif Catalog No. 55006, for 1 hour at 37°C