Recombinant DNMT1 protein

<table>
<thead>
<tr>
<th>Catalog No: 31335</th>
<th>Quantity: 10 µg</th>
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<tbody>
<tr>
<td>Expressed In: Baculovirus</td>
<td>Concentration: 0.26 µg/µl</td>
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<tr>
<td>Source: Human</td>
<td>Source: Human</td>
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</tbody>
</table>

**Buffer Contents:** 10 µg recombinant DNMT1 protein supplied in 40 mM Tris-HCl, pH 8.0, 110 mM NaCl, 2.2 mM KCl, 0.04% Tween-20, and 20% glycerol.

**Background:** DNMT1 – DNA methyltransferase 1 (or DNMT 1) 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 (comprised of DNMT3A and DNMT3B).

DNMT1 is the most abundant DNMT in somatic cells and shows a preference for methylating hemi-methylated DNA. It is considered to be a maintenance DNA methyltransferase that is important in the maintenance of specific patterns of methylation throughout cellular divisions. 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.

**Protein Details:** Recombinant human DNMT1 was expressed in Sf9 cells via a baculovirus expression system as amino acids 2-1632 (accession number NM_001130823) with an N-terminal GST-Tag. The molecular weight of the protein is 211 kDa.

**Application Notes:** Recombinant DNMT1 is suitable for use in DNA methylation assays. This protein is useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

**References:**
This product was used in the following publications:

**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.