CpG Methylase (M. Sssl)

For Complete in vitro Methylation of DNA for Methylation Analysis

- Methylation of chromatin DNA for DNA accessibility studies.
- Inhibition of endonucleases with overlapping CpG sequence recognition.
- [³H]-labeling of DNA.

Enzyme Concentration
4 units/µl.

Unit Definition
One unit is defined as the amount of enzyme required to "protect" 1 µg of λ DNA against cleavage by BstUI restriction endonuclease in a total reaction volume of 20 µl for 1 hour at 37°C.

Reaction Conditions
CpG Methylase in 1X CpG Reaction Buffer with 600 µM SAM. Incubate reaction mixtures at 30°C (Performing the Methylase reaction at 30°C rather than 37°C promotes optimal reaction kinetics).

Inactivation
Heat-inactivate the enzyme at 65°C for 20 minutes.

Storage
-20°C for up to 12 months. Avoid repeated freeze/thawing. Prolonged storage should be ≤ -70°C.

The CpG Methylase (EC 2.1.1.37) from Zymo Research completely methylates all cytosine residues (C\(^5\)) in double-stranded, nonmethylated and hemi-methylated DNA having the dinucleotide sequence 5′…CpG…3′. The recombinant CpG Methylase is isolated from an E. coli strain that expresses the methyltransferase gene from Spiroplasma sp. strain MQ1. The reaction conditions are designed to maximize the processivity of the enzyme to ensure rapid, complete, and reproducible methylation of DNA for accurate DNA methylation analysis.

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<tr>
<th>Product</th>
<th>Description</th>
<th>Cat. No.</th>
<th>Size</th>
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<tbody>
<tr>
<td>CpG Methylase</td>
<td>Methyltransferase for complete, in vitro DNA Methylation</td>
<td>E2010</td>
<td>200 units</td>
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<tr>
<td></td>
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<td>E2011</td>
<td>400 units</td>
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