

## New England Biolabs Certificate of Analysis

**Product Name:** CpG Methyltransferase (M.SssI)  
**Catalog Number:** M0226S  
**Concentration:** 4,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to protect 1 µg of Lambda DNA in a total reaction volume of 20 µl in 1 hour at 37°C against cleavage by BstUI restriction endonuclease.  
**Packaging Lot Number:** 10094123  
**Expiration Date:** 11/2021  
**Storage Temperature:** -20°C  
**Storage Conditions:** 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 200 µg/ml BSA, (pH 7.4 @ 25°C)  
**Specification Version:** PS-M0226S/L v1.0

CpG Methyltransferase (M.SssI) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0226SVIAL	CpG Methyltransferase (M.SssI)	10086518	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10091460	Pass
B7002SVIAL	NEBuffer™ 2	10093128	Pass

Assay Name/Specification	Lot # 10094123
<p><b>Non-Specific DNase Activity (16 Hour)</b>            A 50 µl reaction in NEBuffer 2 containing 1 µg of Lambda DNA and a minimum of 100 units of CpG Methyltransferase (M.SssI) incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Functional Testing (Methyltransferase)</b>            A 20 µl reaction in NEBuffer 2 supplemented with 160 µM SAM containing 1 µg of Lambda DNA and 1 unit of CpG Methyltransferase (M.SssI) incubated for 1 hour at 37°C followed by heat inactivation results in ≥ 95% protection from digestion with 10 units of BstUI in NEBuffer 2 incubated at 60°C for 1 hour as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Exonuclease Activity (Radioactivity Release)</b>            A 50 µl reaction in NEBuffer 2 containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 100 units of CpG Methyltransferase (M.SssI) incubated for 4 hours at 37°C releases &lt;0.1% of the total</p>	Pass

Assay Name/Specification	Lot # 10094123
<p>radioactivity.</p> <p><b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in NEBuffer 2 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 40 units of CpG Methyltransferase (M.SssI) incubated for 4 hours at 37°C results in &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	<p><b>Pass</b></p>

This product has been tested and shown to be in compliance with all specifications.

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Timothy Meixsell  
Production Scientist  
08 Feb 2021



Josh Hersey  
Packaging Quality Control Inspector  
08 Feb 2021