

## 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.  
**Lot Number:** 10043536  
**Expiration Date:** 04/2020  
**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)	10043533	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10041003	Pass
B7002SVIAL	NEBuffer™ 2	10033147	Pass

Assay Name/Specification	Lot # 10043536
<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 <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<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 <0.1% of the total radioactivity.	Pass
<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	Pass

Assay Name/Specification	Lot # 10043536
<p>gel electrophoresis.</p> <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>	<p><b>Pass</b></p>

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



Tony Spear-Alfonso  
Production Scientist  
10 Jan 2019



Michael Tonello  
Packaging Quality Control Inspector  
30 Apr 2019