

## New England Biolabs Certificate of Analysis

**Product Name:** CpG Methyltransferase (M.SssI)  
**Catalog Number:** M0226M  
**Concentration:** 20,000 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:** 10128959  
**Expiration Date:** 12/2022  
**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-M0226M v1.0

CpG Methyltransferase (M.SssI) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0226M VIAL	CpG Methyltransferase (M.SssI)	10128956	Pass
B9003S VIAL	S-adenosylmethionine (SAM)	10124322	Pass
B7002S VIAL	NEBuffer™ 2	10120519	Pass

Assay Name/Specification	Lot # 10128959
<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.	Pass
<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.	Pass
<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	Pass

Assay Name/Specification	Lot # 10128959
<p>electrophoresis.</p> <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 radioactivity.</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  
07 Dec 2021



Josh Hersey  
Packaging Quality Control Inspector  
07 Dec 2021