

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: 10180288
Expiration Date: 02/2024
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)	10176788	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10171171	Pass
B7002SVIAL	NEBuffer™ 2	10173666	Pass

Assay Name/Specification	Lot # 10180288
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 2 containing 1 µg of a mixture of single and double-stranded [³ 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
Endonuclease Activity (Nicking) 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
Functional Testing (Methyltransferase) 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 # 10180288
<p>gel electrophoresis.</p> <p>Non-Specific DNase Activity (16 Hour) 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>Pass</p>

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

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 Jamie Souza
 Production Scientist
 06 Feb 2023


 Josh Hersey
 Packaging Quality Control Inspector
 14 Feb 2023