NEW ENGLAND BioLabs Inc.
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240 County Road
Ipswich, MA 01938-2723
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New England Biolabs
Certificate of Analysis

Product Name:	*CpG Methyltransferase (M.SssI)*
Catalog Number:	*M0226L*
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:	*10064783*
Expiration Date:	*11/2020*
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**
M0226LVIAL	CpG Methyltransferase (M.SssI)	10059997	**Pass**
B9003SVIAL	S-adenosylmethionine (SAM)	10067102	**Pass**
B7002SVIAL	NEBuffer™ 2	10061303	**Pass**

Assay Name/Specification	**Lot # 10064783**
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 37ºC results in a DNA pattern free of detectable nuclease degradation 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 gel electrophoresis.	**Pass**
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	**Pass**

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Assay Name/Specification	Lot # 10064783
radioactivity. **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**

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

Tim Meixsell
Production Scientist
14 Nov 2019

Michael Tonello
Packaging Quality Control Inspector
12 Mar 2020