

## New England Biolabs Product Specification

|                        |                                                                                                                                                                                                     |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name:          | <i>CpG Methyltransferase (M.SssI)</i>                                                                                                                                                               |
| Catalog #:             | <i>M0226M</i>                                                                                                                                                                                       |
| Concentration:         | <i>20,000 units/ml</i>                                                                                                                                                                              |
| Unit Definition:       | <i>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.</i> |
| Shelf Life:            | <i>12 months</i>                                                                                                                                                                                    |
| Storage Temp:          | <i>-20°C</i>                                                                                                                                                                                        |
| Storage Conditions:    | <i>10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 200 µg/ml BSA, (pH 7.4 @ 25°C)</i>                                                                                                         |
| Specification Version: | <i>PS-M0226M v2.0</i>                                                                                                                                                                               |
| Effective Date:        | <i>30 Aug 2024</i>                                                                                                                                                                                  |

### Assay Name/Specification (minimum release criteria)

**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.

**Exonuclease Activity (Radioactivity Release)** - 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 40 units of CpG Methyltransferase (M.SssI) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.

**Non-Specific DNase Activity (16 Hour)** - A 50 µl reaction in NEBuffer 2 containing 1 µg of Lambda DNA and a minimum of 40 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.

One or more products referenced in this document may be covered by a 3rd-party trademark.  
Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.



Date 30 Aug 2024

Lauren Brown  
Quality Approver

