

## New England Biolabs Certificate of Analysis

**Product Name:** BamHI Methyltransferase  
**Catalog Number:** M0223S  
**Concentration:** 4,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to protect 1 µg Lambda DNA in 1 hour at 37°C in a total reaction volume of 10 µl against cleavage by BamHI restriction endonuclease.  
**Packaging Lot Number:** 10068208  
**Expiration Date:** 02/2021  
**Storage Temperature:** -20°C  
**Storage Conditions:** 50 mM Tris-HCl, 1 mM DTT, 10 mM EDTA, 50 % Glycerol, 200 µg/ml BSA, (pH 7.5 @ 25°C)  
**Specification Version:** PS-M0223S/L v1.0

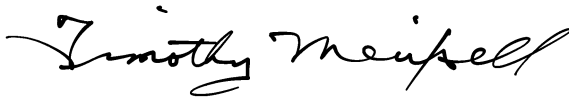
| BamHI Methyltransferase Component List |   |            |                      |
|--|---|------------|----------------------|
| NEB Part Number                        | Component Description                   | Lot Number | Individual QC Result |
| M0223SVIAL                             | BamHI Methyltransferase                 | 10068206   | Pass                 |
| B9003SVIAL                             | S-adenosylmethionine (SAM)              | 10079763   | Pass                 |
| B0223SVIAL                             | BamHI Methyltransferase Reaction Buffer | 10034591   | Pass                 |

| Assay Name/Specification  | Lot # 10068208 |
|---|----------------|
| <p><b>Exonuclease Activity (Radioactivity Release)</b><br/>           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 BamHI Methyltransferase incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>  | Pass           |
| <p><b>Functional Testing (Methyltransferase)</b><br/>           A 10 µl reaction in BamHI Methyltransferase Reaction Buffer supplemented with 80 µM SAM containing 1 µg of Lambda DNA and 1 unit of BamHI Methyltransferase incubated for 1 hour at 37°C followed by heat inactivation results in ≥ 95% protection from digestion with 10 units of BamHI in CutSmart® Buffer with 10 mM MgCl<sub>2</sub> incubated at 37°C for 30 minutes as determined by agarose gel electrophoresis.</p> | Pass           |
| <p><b>Non-Specific DNase Activity (16 Hour)</b><br/>           A 50 µl reaction in NEBuffer 2 containing 1 µg of HindIII digested Lambda DNA and a minimum of 40 units of BamHI Methyltransferase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by</p>  | Pass           |

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|------------------------------|----------------|
| agarose gel electrophoresis. |                |

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

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17 Sep 2020



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17 Sep 2020