

## 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:** 10094137  
**Expiration Date:** 10/2021  
**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	10084793	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10091460	Pass
B0223SVIAL	BamHI Methyltransferase Reaction Buffer	10034591	Pass

Assay Name/Specification	Lot # 10094137
<p><b>Non-Specific DNase Activity (16 Hour)</b>            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 agarose gel electrophoresis.</p>	Pass
<p><b>Functional Testing (Methyltransferase)</b>            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>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 40 units of BamHI Methyltransferase incubated for 4 hours at 37°C releases &lt;0.1% of the total</p>	Pass

Assay Name/Specification	Lot # 10094137
radioactivity.	

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

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.



---

Timothy Meixsell  
Production Scientist  
12 Jan 2021



---

Michael Tonello  
Packaging Quality Control Inspector  
12 Jan 2021