

## 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.  
**Lot Number:** 10049791  
**Expiration Date:** 05/2020  
**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	10044686	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10049759	Pass
B0223SVIAL	BamHI Methyltransferase Reaction Buffer	10034591	Pass

Assay Name/Specification	Lot # 10049791
<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 radioactivity.</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>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</p>	Pass

Assay Name/Specification	Lot # 10049791
agarose gel electrophoresis.	

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



Tim Meixsell  
Production Scientist  
22 Jan 2019



Michael Tonello  
Packaging Quality Control Inspector  
08 Aug 2019