

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: *10239931*
Expiration Date: *05/2025*
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	10245569	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10233985	Pass
B0223SVIAL	BamHI Methyltransferase Reaction Buffer	10182161	Pass

Assay Name/Specification	Lot # 10239931
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 2 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 40 units of BamHI Methyltransferase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Functional Testing (Methyltransferase) 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 MgCl₂ incubated at 37°C for 30 minutes as determined by agarose gel electrophoresis.</p>	Pass
<p>Non-Specific DNase Activity (16 Hour) 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.

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



Nicole Castagnozzi
Production Scientist
05 Jun 2024



Michael Tonello
Packaging Quality Control Inspector
10 Jun 2024