

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: 10182159
Expiration Date: 03/2024
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	10180180	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10171171	Pass
B0223SVIAL	BamHI Methyltransferase Reaction Buffer	10168982	Pass

Assay Name/Specification	Lot # 10182159
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 MgCl ₂ incubated at 37°C for 30 minutes as determined by agarose gel electrophoresis.	Pass
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 agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 2 containing 1 µg of a mixture of single and double-stranded [³ H] 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	Pass

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radioactivity.	

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

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Jamie Souza
Production Scientist
27 Feb 2023



Josh Hersey
Packaging Quality Control Inspector
27 Feb 2023