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New England Biolabs
Certificate of Analysis

Product Name:	*BamHI Methyltransferase*
Catalog #:	*M0223S/L*
Concentration:	*4,000 units/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 #:	*0091803*
Assay Date:	*03/2018*
Expiration Date:	*03/2019*
Storage Temp:	*-20°C*
Storage Conditions:	*50 mM Tris-HCl, 1 mM DTT, 10 mM EDTA, 50 % Glycerol, 200 αg/ml BSA, (pH 7.5 @ 25°C)*
Specification Version:	*PS-M0223S/L v1.0*
Effective Date:	*16 May 2018*

Assay Name/Specification (minimum release criteria)	**Lot #0091803**
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 radioactivity.	**Pass**
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**

Authorized by
Derek Robinson
16 May 2018

Inspected by
Timothy Meixsell
28 Feb 2018

ISO 9001 Registered Quality Management
ISO 14001 Registered Environmental Management
ISO 13485 Registered Medical Devices