

New England Biolabs Product Specification

<i>Product Name:</i>	<i>BamHI Methyltransferase</i>
<i>Catalog #:</i>	<i>M0223S/L</i>
<i>Concentration:</i>	<i>4,000 units/ml</i>
<i>Unit Definition:</i>	<i>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.</i>
<i>Shelf Life:</i>	<i>12 months</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Storage Conditions:</i>	<i>50 mM Tris-HCl, 1 mM DTT, 10 mM EDTA, 50 % Glycerol, 200 µg/ml BSA, (pH 7.5 @ 25°C)</i>
<i>Specification Version:</i>	<i>PS-M0223S/L v1.0</i>
<i>Effective Date:</i>	<i>16 May 2018</i>

Assay Name/Specification (minimum release criteria)

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.

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.

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.



Date 16 May 2018

Derek Robinson
Director of Quality Control

