

New England Biolabs Product Specification

<i>Product Name:</i>	<i>dam Methyltransferase</i>
<i>Catalog #:</i>	<i>M0222S/L</i>
<i>Concentration:</i>	<i>8,000 units/ml</i>
<i>Unit Definition:</i>	<i>One unit is defined as the amount of enzyme required to protect 1 µg Lambda (dam-) DNA in 1 hour at 37°C in a total reaction volume of 10 µl against cleavage by MboI restriction endonuclease.</i>
<i>Shelf Life:</i>	<i>24 months</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Storage Conditions:</i>	<i>50 mM Tris-HCl, 50 mM KCl, 10 mM EDTA, 1 mM DTT, 200 µg/ml BSA, 50% Glycerol, (pH 7.5 @ 25°C)</i>
<i>Specification Version:</i>	<i>PS-M0222S/L v2.0</i>
<i>Effective Date:</i>	<i>09 Jul 2019</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 80 units of dam Methyltransferase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.

Functional Testing (Methyltransferase) - A 10 µl reaction in dam Methyltransferase Reaction Buffer supplemented with 80 µM SAM containing 1 µg of Lambda dam- DNA and 1 unit of dam Methyltransferase incubated for 1 hour at 37°C followed by heat inactivation results in ≥ 95% protection from digestion with 10 units of MboI in NEBuffer 3 with 10 mM MgCl₂ incubated at 37°C for 1 hour 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 80 units of dam 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 09 Jul 2019

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Director of Quality Control

