

New England Biolabs Product Specification

<i>Product Name:</i>	<i>EcoRI Methyltransferase</i>
<i>Catalog #:</i>	<i>M0211S</i>
<i>Concentration:</i>	<i>40,000 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 rCutSmart™ Buffer in a total reaction volume of 10 µl against cleavage by EcoRI restriction endonuclease.</i>
<i>Shelf Life:</i>	<i>24 months</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Storage Conditions:</i>	<i>200 mM NaCl, 100 mM Potassium Phosphate, 0.1 mM EDTA, 10 mM βME, 200 µg/ml BSA, 50% Glycerol, (pH 7.4 @ 25°C)</i>
<i>Specification Version:</i>	<i>PS-M0211S v2.0</i>
<i>Effective Date:</i>	<i>03 Dec 2021</i>

Assay Name/Specification (minimum release criteria)

Functional Testing (Methyltransferase) - A 10 µl reaction in rCutSmart™ Buffer supplemented with 80 µM SAM containing 1 µg of Lambda DNA and 1 unit of EcoRI Methyltransferase incubated for 1 hour at 37°C followed by heat inactivation results in ≥ 95% protection from digestion with 10 units of EcoRI in rCutSmart™ Buffer incubated at 37°C for 30 minutes as determined by agarose gel electrophoresis.

Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in rCutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³H] *E. coli* DNA and a minimum of 400 units of EcoRI Methyltransferase incubated for 4 hours at 37°C releases <0.3% of the total radioactivity.

Non-Specific DNase Activity (16 Hour) - A 50 µl reaction in rCutSmart™ Buffer containing 1 µg of Lambda-HindIII DNA and a minimum of 400 units of EcoRI Methyltransferase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

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