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New England Biolabs Product Specification

Product Name: HpaII Methyltransferase

Catalog #: M0214S/L/V
Concentration: 4,000 units/ml

Unit Definition: One unit is defined as the amount of enzyme required to protect 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction

volume of 50 µl against cleavage by HpaII restriction endonuclease.

Shelf Life: 12 months
Storage Temp: -20°C

Storage Conditions: 150 mM NaCl, 50 mM Tris-HCl, 0.1 mM EDTA, 5 mM TCEP-HCl, 50 % Glycerol, 200 µg/ml BSA, (pH 7.5 @)

25°C)

Specification Version: PS-M0214S/L v2.0

Effective Date: 31 Jan 2018

Assay Name/Specification (minimum release criteria)

Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³H] *E. coli* DNA and a minimum of 40 units of HpaII Methyltransferase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.

Methylase Activity (dam Methylase) - A 20 μ l reaction in CutSmart® Buffer supplemented with 80 μ M S-adenosylmethionine containing 1 μ g Lambda DNA and a minimum of 40 units of HpaII Methyltransferase incubated for 4 hours at 37°C did not protect the DNA from digestion by MboI as determined by agarose gel electrophoresis.

Non-Specific DNase Activity (16 Hour) - A 50 μ l reaction in CutSmart® Buffer containing 1 μ g of HaeIII digested PhiX174 RF I DNA and a minimum of 40 units of HpaII Methyltransferase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

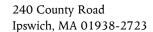
Protein Purity Assay (SDS-PAGE) - HpaII Methyltransferase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.

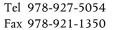
RNase Activity (Extended Digestion) - A 10 μ l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 μ l of HpaII Methyltransferase is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.



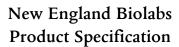








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New england Biolabs

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Date 31 Jan 2018

Derek Robinson Quality Approver





