

## New England Biolabs Certificate of Analysis

**Product Name:** *HpaII Methyltransferase*  
**Catalog Number:** *M0214S*  
**Concentration:** *4,000 U/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.*  
**Packaging Lot Number:** *10095212*  
**Expiration Date:** *01/2022*  
**Storage Temperature:** *-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*

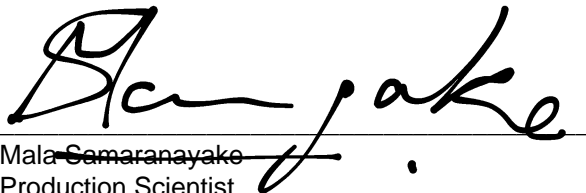
| HpaII Methyltransferase Component List |                            |            |                      |
|--|----------------------------|------------|----------------------|
| NEB Part Number                        | Component Description      | Lot Number | Individual QC Result |
| M0214SVIAL                             | HpaII Methyltransferase    | 10095213   | Pass                 |
| B9003SVIAL                             | S-adenosylmethionine (SAM) | 10091460   | Pass                 |
| B7204SVIAL                             | CutSmart® Buffer           | 10092684   | Pass                 |

| Assay Name/Specification   | Lot # 10095212 |
|--|----------------|
| <b>Exonuclease Activity (Radioactivity Release)</b><br>A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] 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.                               | Pass           |
| <b>RNase Activity (Extended Digestion)</b><br>A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl 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. | Pass           |
| <b>Protein Purity Assay (SDS-PAGE)</b><br>HpaII Methyltransferase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.   | Pass           |
| <b>Non-Specific DNase Activity (16 Hour)</b>   | Pass           |

| Assay Name/Specification   | Lot # 10095212     |
|--|--------------------|
| <p>A 50 µl reaction in CutSmart® Buffer containing 1 µg 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.</p> <p><b>Methylase Activity (dam Methylase)</b><br/>A 20 µl reaction in CutSmart® Buffer supplemented with 80 µM S-adenosylmethionine containing 1 µg 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 Mbol as determined by agarose gel electrophoresis.</p> | <p><b>Pass</b></p> |

This product has been tested and shown to be in compliance with all specifications.

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29 Jan 2021



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