

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.*
Lot Number: *10022347*
Expiration Date: *09/2019*
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	10022346	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10018391	Pass
B7024SVIAL	Gel Loading Dye, Purple (6X)	10018419	Pass

Assay Name/Specification	Lot # 10022347
Methylase Activity (dam Methylase) 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 MboI as determined by agarose gel electrophoresis.	Pass
Non-Specific DNase Activity (16 Hour) 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.	Pass
Protein Purity Assay (SDS-PAGE) HpaII Methyltransferase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
RNase Activity (Extended Digestion)	Pass

Assay Name/Specification	Lot # 10022347
<p>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.</p> <p>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.</p>	<p>Pass</p>

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



Tony Spear-Alfonso
Production Scientist
21 Aug 2018



Michael Tonello
Packaging Quality Control Inspector
28 Sep 2018