

New England Biolabs Certificate of Analysis

Product Name: *HaeIII Methyltransferase*
Catalog Number: *M0224S*
Concentration: *10,000 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 10 µl against cleavage by HaeIII restriction endonuclease.*
Packaging Lot Number: *10172114*
Expiration Date: *11/2023*
Storage Temperature: *-20°C*
Storage Conditions: *50 mM Tris-HCl, 50 mM KCl, 10 mM EDTA, 1 mM DTT, 200 µg/ml BSA, 50 % Glycerol, (pH 7.5 @ 25°C)*
Specification Version: *PS-M0224S/L v1.0*

HaeIII Methyltransferase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0224SVIAL	HaeIII Methyltransferase	10172113	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10157973	Pass
B0224SVIAL	HaeIII Methyltransferase Reaction Buffer	10169001	Pass

Assay Name/Specification	Lot # 10172114
<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 100 units of HaeIII Methyltransferase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled pBR322 DNA and a minimum of 100 units of HaeIII Methyltransferase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart® Buffer containing 1 µg of Lambda-HindIII DNA and a minimum of 100 units of HaeIII 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>	Pass

Assay Name/Specification	Lot # 10172114
<p>Protein Purity Assay (SDS-PAGE) HaeIII Methyltransferase is $\geq 95\%$ pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass
<p>RNase Activity (Extended Digestion) A 10 μl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 μl of HaeIII 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>	Pass

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

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Production Scientist
06 Dec 2022



Michael Tonello
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20 Dec 2022