

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.*
Lot Number: *10037277*
Expiration Date: *02/2020*
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	10036307	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10035983	Pass
B0224SVIAL	HaeIII Methyltransferase Reaction Buffer	10027137	Pass

Assay Name/Specification	Lot # 10037277
<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>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>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 # 10037277
<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.



Tim Meixsell
Production Scientist
05 Nov 2018



Michael Tonello
Packaging Quality Control Inspector
20 Feb 2019