240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
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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:	*10245571*
Expiration Date:	*06/2025*
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	10245570	**Pass**
B9003SVIAL	S-adenosylmethionine (SAM)	10233985	**Pass**
B0224SVIAL	HaeIII Methyltransferase Reaction Buffer	10245572	**Pass**

Assay Name/Specification	Lot # 10245571
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 37ºC results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	**Pass**
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 37ºC releases <0.1% of the total radioactivity.	**Pass**
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 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**

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Assay Name/Specification	Lot # 10245571
Protein Purity Assay (SDS-PAGE) HaeIII Methyltransferase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**Pass**
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 37ºC. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	**Pass**

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

Nicole Castagnozzi
Production Scientist
01 Jul 2024

Michael Tonello
Packaging Quality Control Inspector
08 Jul 2024