

New England Biolabs Certificate of Analysis

Product Name: GpC Methyltransferase (M.CviPI)
Catalog Number: M0227L
Concentration: 4,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to protect 1 µg Lambda DNA in 1 hour at 37°C in a total reaction volume of 20 µl against cleavage by HaeIII restriction endonuclease.
Packaging Lot Number: 10132529
Expiration Date: 12/2023
Storage Temperature: -20°C
Storage Conditions: 15 mM Tris-HCl, 200 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 200 µg/ml BSA, (pH 7.4 @ 25°C)
Specification Version: PS-M0227S/L v2.0

GpC Methyltransferase (M.CviPI) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0227LVIAL	GpC Methyltransferase (M.CviPI)	10132530	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10124322	Pass
B0227SVIAL	GC Reaction Buffer	10105297	Pass

Assay Name/Specification	Lot # 10132529
Endonuclease Activity (Nicking) A 50 µl reaction in GC Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 40 units of GpC Methyltransferase (M.CviPI) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in GC Reaction Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 40 units of GpC Methyltransferase (M.CviPI) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in GC Reaction Buffer containing 1 µg of Lambda DNA and a minimum of 40 units of GpC Methyltransferase (M.CviPI) incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass

Assay Name/Specification	Lot # 10132529
Functional Testing (Methyltransferase) A 20 µl reaction in GC Reaction Buffer supplemented with 160 µM SAM containing 1 µg of Lambda DNA and 1 unit of GpC Methyltransferase (M.CviPI) incubated for 1 hour at 37°C followed by heat inactivation results in ≥ 95% protection from digestion with 10 units of HaeIII in NEBuffer 2 incubated at 37°C for 1 hour as determined by agarose gel electrophoresis.	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.



Timothy Meixsell
Production Scientist
13 Jan 2022



Michael Tonello
Packaging Quality Control Inspector
13 Jan 2022