

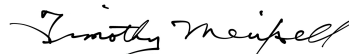
New England Biolabs Certificate of Analysis

Product Name: GpC Methyltransferase (M.CviPI)
Catalog #: M0227S/L
Concentration: 4,000 units/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 10 µl against cleavage by HaeIII restriction endonuclease.
Lot #: 0021709
Assay Date: 09/2017
Expiration Date: 09/2019
Storage Temp: -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 v1.0
Effective Date: 21 May 2018

Assay Name/Specification (minimum release criteria)	Lot #0021709
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] <i>E. coli</i> 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
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
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



Authorized by
Derek Robinson
21 May 2018



Inspected by
Timothy Meixsell
22 Sep 2017

