NEW ENGLAND Biolabs®

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New England Biolabs
Product Specification

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 20 µl against cleavage by HaeIII restriction endonuclease.*
Shelf Life:	*24 months*
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 v3.0*
Effective Date:	*09 Sep 2024*

Assay Name/Specification (minimum release criteria)
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.
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.
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.

Lauren Brown
Quality Approver

Date 09 Sep 2024