

New England Biolabs Certificate of Analysis

Product Name: *MspI Methyltransferase*
Catalog Number: *M0215S*
Concentration: *5,000 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 10 µl against cleavage by MspI restriction endonuclease.*
Lot Number: *10041621*
Expiration Date: *03/2021*
Storage Temperature: *-20°C*
Storage Conditions: *50 mM Tris-HCl, 50 mM NaCl, 10 mM EDTA, 5 mM βME, 200 µg/ml BSA, 50% Glycerol, (pH 7.5 @ 25°C)*
Specification Version: *PS-M0215S v1.0*

MspI Methyltransferase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0215SVIAL	MspI Methyltransferase	10040212	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10033230	Pass
B0215SVIAL	MspI Methylase Reaction Buffer	10039802	Pass

Assay Name/Specification	Lot # 10041621
<p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 2 containing 1 µg of Lambda-HindIII DNA and a minimum of 15 units of MspI 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
<p>Functional Testing (Methyltransferase) A 10 µl reaction in MspI Methyltransferase Reaction Buffer supplemented with 80 µM SAM containing 1 µg of Lambda DNA and 1 unit of MspI Methyltransferase incubated for 1 hour at 37°C followed by heat inactivation results in ≥ 95% protection from digestion with 5 units of MspI in NEBuffer 2 with 10 mM MgCl₂ incubated at 37°C for 30 minutes as determined by agarose gel electrophoresis.</p>	Pass
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 2 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 15 units of MspI Methyltransferase incubated for 4 hours at 37°C releases <0.1% of the total</p>	Pass

Assay Name/Specification	Lot # 10041621
radioactivity.	

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



Tony Spear-Alfonso
Production Scientist
16 Jan 2019



Michael Tonello
Packaging Quality Control Inspector
28 Mar 2019