

## 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.*  
**Packaging Lot Number:** *10062678*  
**Expiration Date:** *07/2021*  
**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	10049710	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10070537	Pass
B0215SVIAL	MspI Methylase Reaction Buffer	10062679	Pass

Assay Name/Specification	Lot # 10062678
<p><b>Non-Specific DNase Activity (16 Hour)</b>            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><b>Functional Testing (Methyltransferase)</b>            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 MgCl<sub>2</sub> incubated at 37°C for 30 minutes as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Exonuclease Activity (Radioactivity Release)</b>            A 50 µl reaction in NEBuffer 2 containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 15 units of MspI Methyltransferase incubated for 4 hours at 37°C releases &lt;0.1% of the total</p>	Pass

Assay Name/Specification	Lot # 10062678
radioactivity.	

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



Timothy Meixsell  
Production Scientist  
08 Apr 2020



Jay Minichiello  
Packaging Quality Control Inspector  
08 Apr 2020