

## 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:** *10035087*  
**Expiration Date:** *01/2021*  
**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	10035041	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10033230	Pass
B0215SVIAL	MspI Methylase Reaction Buffer	10025988	Pass


Assay Name/Specification	Lot # 10035087
<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 radioactivity.</p>	Pass
<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</p>	Pass

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electrophoresis.	

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  
23 Jan 2019