

New England Biolabs Certificate of Analysis

Product Name: *MmeI*
Catalog Number: *R0637S*
Concentration: *2,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme required to digest 1 µg of PhiX174 RF I DNA in 1 hour at 37°C in 50 µl of reaction buffer.*
Packaging Lot Number: *10091747*
Expiration Date: *09/2022*
Storage Temperature: *-20°C*
Storage Conditions: *300 mM NaCl, 10 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 0.32 mM S-adenosylmethionine (SAM), 50% Glycerol, 500 µg/ml BSA (pH 7.4 @ 25°C)*
Specification Version: *PS-R0637S/L v3.0*

MmeI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0637SVIAL	MmeI	10086568	Pass
B7204SVIAL	CutSmart® Buffer	10089402	Pass

Assay Name/Specification	Lot # 10091747
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 20 units of MmeI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Protein Purity Assay (SDS-PAGE) MmeI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of PhiX174 DNA and a minimum of 2 units of MmeI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of PhiX174 DNA with MmeI, ~75% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, 0% can be recut with MmeI.	Pass

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

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30 Nov 2020



Michael Tonello
Packaging Quality Control Inspector
30 Nov 2020