

New England Biolabs Certificate of Analysis

Product Name: Mmel
Catalog Number: R0637L
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.
Lot Number: 10026331
Expiration Date: 10/2019
Storage Temperature: -20°C
Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA
Specification Version: PS-R0637S/L v2.0

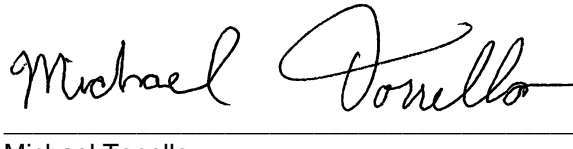
Mmel Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0637LVIAL	Mmel	10026332	Pass
B9003SVIAL	S-adenosylmethionine (SAM)	10018391	Pass
B7204SVIAL	CutSmart® Buffer	10018444	Pass

Assay Name/Specification	Lot # 10026331
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of PhiX174 DNA with Mmel, ~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 Mmel.	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 Mmel incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Protein Purity Assay (SDS-PAGE) Mmel is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass
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 Mmel incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass

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



Tony Spear-Alfonso
Production Scientist
21 Aug 2018



Michael Tonello
Packaging Quality Control Inspector
29 Oct 2018