

## New England Biolabs Certificate of Analysis

Product Name: NEBNext<sup>®</sup> FFPE DNA Repair Mix  
 Catalog Number: M6630L  
 Lot Number: 10050874  
 Expiration Date: 07/2020  
 Storage Temperature: -20°C  
 Specification Version: PS-M6630S/L v2.0

NEBNext <sup>®</sup> FFPE DNA Repair Mix Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M6630LVIAL	NEBNext <sup>®</sup> FFPE DNA Repair Mix	10050875	Pass
E6622AAVIAL	NEBNext <sup>®</sup> FFPE DNA Repair Buffer	10050876	Pass

Assay Name/Specification	Lot # 10050874
<p><b>Functional Testing (Oligonucleotide Cleavage - Thymine Glycol)</b>            A 10 µl reaction in ThermoPol<sup>®</sup> Reaction Buffer containing 2.5 pmol of annealed oligo containing thymine glycol as the non-standard base and 1 µl of the NEBNext<sup>®</sup> FFPE DNA Repair Mix incubated for 20 minutes at 37°C resulted in &gt;70% cleavage as determined by polyacrylamide gel electrophoresis.</p>	Pass
<p><b>PCR Amplification (1 kb)</b>            A 48 µl reaction in ThermoPol<sup>®</sup> Reaction Buffer containing 1.5 ng of UV damaged Lambda DNA, 100 µM dNTPs, 500 µM NAD<sup>+</sup> and 1 µl of the NEBNext<sup>®</sup> FFPE DNA Repair Mix was incubated for 15 minutes at 37°C. Addition of 100 µM dNTPs, 0.4 µM L1 primer mix and 2.5 units of Taq DNA Polymerase followed by 25 cycles of PCR resulted in the expected 1 kb specific product.</p>	Pass
<p><b>Functional Testing (Oligonucleotide Cleavage - 8-oxo-guanine)</b>            A 10 µl reaction in ThermoPol<sup>®</sup> Reaction Buffer containing 2.5 pmol of annealed oligo containing 8-oxo-guanine as the non-standard base and 1 µl of the NEBNext<sup>®</sup> FFPE DNA Repair Mix incubated for 1 hour at 37°C resulted in &gt;70% cleavage as determined by polyacrylamide gel electrophoresis.</p>	Pass
<p><b>Functional Testing (FFPE Repair Mix)</b>            Pretreatment with NEBNext<sup>®</sup> FFPE DNA Repair Mix improves the quality of base calling, especially C &amp; G for FFPE DNA, when compared to an untreated control as determined by sequencing on the Illumina<sup>®</sup> platform. NEBNext<sup>®</sup> FFPE DNA Repair Mix lowers the C:T (same as G:A) mutation for FFPE DNA, which is due to cytosine deamination to U, when compared to an untreated control as determined by sequencing on the Illumina<sup>®</sup></p>	Pass

Assay Name/Specification	Lot # 10050874
<p>platform.</p> <p><b>Functional Testing (Oligonucleotide Cleavage - Uracil)</b>            A 10 µl reaction in ThermoPol® Reaction Buffer containing 2.5 pmol of annealed oligo containing uracil as the non-standard base and 1 µl of the NEBNext® FFPE DNA Repair Mix incubated for 10 minutes at 37°C resulted in &gt;70% cleavage as determined by polyacrylamide gel electrophoresis.</p>	<p><b>Pass</b></p>

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




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Christine Sumner  
Production Scientist  
08 Oct 2019




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Michael Tonello  
Packaging Quality Control Inspector  
08 Oct 2019