

## New England Biolabs Certificate of Analysis

Product Name: NEBNext® FFPE DNA Repair Mix  
 Catalog Number: M6630S  
 Packaging Lot Number: 10121580  
 Expiration Date: 04/2022  
 Storage Temperature: -20°C  
 Specification Version: PS-M6630S/L v2.0

NEBNext® FFPE DNA Repair Mix Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M6630SVIAL	NEBNext® FFPE DNA Repair Mix	10107938	Pass
E6622AVIAL	NEBNext® FFPE DNA Repair Buffer	10107939	Pass

Assay Name/Specification	Lot # 10121580
<p><b>Functional Testing (Oligonucleotide Cleavage - Thymine Glycol)</b>            A 10 µl reaction in ThermoPol® Reaction Buffer containing 2.5 pmol of annealed oligo containing thymine glycol as the non-standard base and 1 µl of the NEBNext® 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>Functional Testing (Oligonucleotide Cleavage - 8-oxo-guanine)</b>            A 10 µl reaction in ThermoPol® Reaction Buffer containing 2.5 pmol of annealed oligo containing 8-oxo-guanine as the non-standard base and 1 µl of the NEBNext® 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 (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>	Pass
<p><b>Functional Testing (FFPE Repair Mix)</b>            Pretreatment with NEBNext® 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® platform. NEBNext® 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® platform.</p>	Pass

Assay Name/Specification	Lot # 10121580
<p><b>PCR Amplification (1 kb)</b> A 48 µl reaction in ThermoPol® 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® 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>	<p><b>Pass</b></p>

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

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