

## New England Biolabs Certificate of Analysis

Product Name: NEBNext<sup>®</sup> FFPE DNA Repair Mix  
 Catalog Number: M6630S  
 Packaging Lot Number: 10091939  
 Expiration Date: 09/2021  
 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 |
| M6630SVIAL  | NEBNext <sup>®</sup> FFPE DNA Repair Mix    | 10084320   | Pass                 |
| E6622AVIAL  | NEBNext <sup>®</sup> FFPE DNA Repair Buffer | 10084321   | Pass                 |

| Assay Name/Specification  | Lot # 10091939 |
|---|----------------|
| <p><b>Functional Testing (Oligonucleotide Cleavage - Uracil)</b><br/>           A 10 µl reaction in ThermoPol<sup>®</sup> Reaction Buffer containing 2.5 pmol of annealed oligo containing uracil as the non-standard base and 1 µl of the NEBNext<sup>®</sup> 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>PCR Amplification (1 kb)</b><br/>           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 (FFPE Repair Mix)</b><br/>           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> platform.</p> | Pass           |
| <p><b>Functional Testing (Oligonucleotide Cleavage - 8-oxo-guanine)</b><br/>           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</p>   | Pass           |

| Assay Name/Specification   | Lot # 10091939     |
|--|--------------------|
| <p>polyacrylamide gel electrophoresis.</p> <p><b>Functional Testing (Oligonucleotide Cleavage - Thymine Glycol)</b><br/>           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> | <p><b>Pass</b></p> |

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.



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25 Nov 2020



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Packaging Quality Control Inspector  
25 Nov 2020