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240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

## New England Biolabs Certificate of Analysis

Product Name:	NEBNext® FFPE DNA Repair Mix
Catalog Number:	M6630S
Packaging Lot Number:	10067007
Expiration Date:	11/2020
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	10060500	Pass	
E6622AVIAL	NEBNext® FFPE DNA Repair Buffer	10060501	Pass	

Assay Name/Specification	Lot # 10067007
<b>Functional Testing (FFPE Repair Mix)</b> Pretreatment with NEBNext® FFPE DNA Repair Mix improves the quality of base calling, especially C & 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.	Pass
PCR Amplification (1 kb) A 48 $\mu$ I reaction in ThermoPol® Reaction Buffer containing 1.5 ng of UV damaged Lambda DNA, 100 $\mu$ M dNTPs, 500 $\mu$ M NAD+ and 1 $\mu$ I of the NEBNext® FFPE DNA Repair Mix was incubated for 15 minutes at 37°C. Addition of 100 $\mu$ M dNTPs, 0.4 $\mu$ M 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.	Pass
<b>Functional Testing (Oligonucleotide Cleavage - Uracil)</b> A 10 $\mu$ I reaction in ThermoPol® Reaction Buffer containing 2.5 pmol of annealed oligo containing uracil as the non-standard base and 1 $\mu$ I of the NEBNext® FFPE DNA Repair Mix incubated for 10 minutes at 37°C resulted in >70% cleavage as determined by polyacrylamide gel electrophoresis.	Pass
<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 >70% cleavage as determined by	Pass





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Assay Name/Specification	Lot # 10067007
polyacrylamide gel electrophoresis.	
<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 >70% cleavage as determined by polyacrylamide gel electrophoresis.	Pass

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

Christian Jun

Christine Sumner Production Scientist 15 Mar 2020

Josh Hersey

Packaging Quality Control Inspector 15 Mar 2020

