NEW ENGLAND BioLabs Inc.
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New England Biolabs
Certificate of Analysis

Product Name:	*PreCR® Repair Mix*
Catalog Number:	*M0309S*
Packaging Lot Number:	*10222862*
Expiration Date:	*12/2024*
Storage Temperature:	*-20°C*
Storage Conditions:	*Proprietary*
Specification Version:	*PS-M0309S/L v2.0*

PreCR® Repair Mix Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
S1284AVIAL	L1 Primer Mix	10195872	**Pass**
N3017AVIAL	UV DNA	10197209	**Pass**
M0309SVIAL	PreCR® Repair Mix	10221380	**Pass**
B9007SVIAL	β-Nicotinamide adenine dinucleotide (NAD^+)	10208122	**Pass**
B9004SVIAL	ThermoPol® Reaction Buffer Pack	10215580	**Pass**

Assay Name/Specification	**Lot # 10222862**
Functional Testing (Oligonucleotide Cleavage - 8-oxo-guanine) 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 PreCR® Repair Mix incubated for 1 hour at 37°C resulted in >70% cleavage as determined by polyacrylamide gel electrophoresis	**Pass**
Functional Testing (Oligonucleotide Cleavage - Thymine Glycol) 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 PreCR® Repair Mix incubated for 20 minutes at 37°C resulted in >70% cleavage as determined by polyacrylamide gel electrophoresis	**Pass**
Functional Testing (Oligonucleotide Cleavage - Uracil) 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 PreCR® Repair Mix incubated for 10 minutes at 37°C resulted in >70% cleavage as determined by polyacrylamide gel electrophoresis	**Pass**
PCR Amplification (1 kb, PreCR®) A 48 µl reaction in ThermoPol® Reaction Buffer containing 1.5 ng of UV damaged	**Pass**

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Assay Name/Specification	Lot # 10222862
Lambda DNA, 100 µM dNTPs, 500 µM NAD+ and 1 µl of the PreCR® 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.	

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 for additional information.

Jamie Souza
Production Scientist
28 Dec 2023

Josh Hersey
Packaging Quality Control Inspector
03 Jan 2024